

Part 3: NCAA – Environmental, Safety Health and Quality
Section 1: NCAAA – Safety and Health

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 Safety Management
 - 1.4.2 Occupational Safety and Health
 - 1.4.3 Nuclear Criticality Safety
- 2.0 Manpower Plans
 - 2.1 Safety and Health
- 3.0 Estimate
- 4.0 Risk Plan

Part 3: NCAA – Environmental, Safety Health and Quality
Section 2: NCAAB – ESH&Q Radiological Control

1.0 Narrative

1.1 Overview

1.2 Assumptions

1.3 Drivers

1.4 Scope of Work

1.4.1 Provide External Personnel Radiation Exposure Monitoring

1.4.2 Provide Internal Personnel Radiation Exposure Monitoring

1.4.3 Maintain Records of Personnel Radiation Exposures

1.4.4 Prepare Radiation Work Permits for Site Radiological Work

1.4.5 Specify, Maintain, Repair, and Calibrate Occupational Radiation
Monitoring Instruments

1.4.6 Analyze Job-Specific and Breathing Zone Radiological Air Samples and
Perform Routine Radon Monitoring for Occupational Radiation
Protection Purposes

1.4.7 Maintain Site-wide Programmatic Radiation Protection Documentation

1.4.8 Ensure Site-wide Compliance with Programmatic Requirements

1.4.9 Review Deficiencies, etc., to Determine PAAA Applicability

1.4.10 Provide Guidance and Assistance to Projects to Improve Safety and
Health Execution

1.4.11 Provide Management and Administration for the Programmatic
Radiological Control Organization

1.4.12 Consolidation of All Subtasks, from FY06 – 1Q on.

2.0 Manpower Plans

2.1 ESH&Q Radiological Control

3.0 Estimate

4.0 Risk Plan

Part 3: NCAA – Environmental, Safety Health and Quality
Section 3: NCAAC – ES&H Medical

- 1.0 Narrative
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 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 Medical Services
 - 1.4.2 Health Assessments
 - 1.4.3 Medical Surveillance Program
 - 1.4.4 Treatment of Injuries/Illnesses
 - 1.4.5 Emergency Medical Service
 - 1.4.6 Medical Records
 - 1.4.7 Substance Abuse Testing Program
 - 1.4.8 Fitness/Wellness
 - 1.4.9 Administrative Activities
 - 1.4.10 Summary Manpower Evaluation
- 2.0 Manpower Plans
 - 2.1 ES&H Medical
- 3.0 Estimate
- 4.0 Risk Plan

Part 3: NCAA – Environmental, Safety Health and Quality
Section 4: NCAAD – Security

1.0 MOVED TO NON-DEFENSE

Part 3: NCAA – Environmental, Safety Health and Quality
Section 5: NCAAE – Emergency Services

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 Emergency Preparedness and Management
 - 1.4.2 Fire Protection
 - 1.4.3 Communications Center
- 2.0 Manpower Plans
 - 2.1 Emergency Services
- 3.0 Estimate
- 4.0 Risk Plan

Part 3: NCAA – Environmental, Safety Health and Quality
Section 6: NCAAF – MC&A Programmatic

MOVED TO NON-DEFENSE

Part 3: NCAA – Environmental, Safety Health and Quality
Section 7: NCAAAH –Quality Assurance

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 QA Management and Administration
 - 1.4.2 Quality Assurance Policy and Procedure Management
 - 1.4.3 Interface with DOE for DOE Orders, Ohio, HQ and Site Issues
 - 1.4.4 Program Audits and Verification and Trend Analysis
 - 1.4.5 Price Anderson Coordination Program
 - 1.4.6 Manpower Summary
- 2.0 Manpower Plans
 - 2.1 Quality Assurance
- 3.0 Estimate
- 4.0 Risk Plan

Part 3: NCAA – Environmental, Safety Health and Quality
Section 8: NCAAK –Operations Assurance

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 Conduct of Operations
 - 1.4.2 Pre-Operational and Readiness Assessment Programs
 - 1.4.3 Lessons Learned and Required Reading
 - 1.4.4 Occurrence Reporting and Investigation Programs
- 2.0 Manpower Plans
 - 2.1 Operations Assurance
- 3.0 Estimate
- 4.0 Risk Plan

Part 3: NCAA – Environmental, Safety Health and Quality
Section 9: NCAAAM –Environmental Compliance

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 Management and Administration/Regulatory Policy/Integration
 - 1.4.2 Site Environmental Compliance Oversight
 - 1.4.3 RCRA/CERLCA Compliance
 - 1.4.4 Air Compliance Programs
 - 1.4.5 Project Guidance and Support
- 2.0 Manpower Plans
 - 2.1 Environmental Compliance
- 3.0 Estimate
- 4.0 Risk Plan

Part 3: NCAA – Environmental, Safety Health and Quality
Section 10: NCAAL – ESH&Q Administration

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 ESH&Q Administration
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 - 2.1 ESH&Q Administration
- 3.0 Estimate
- 4.0 Risk Plan

Part 3: NCAA – Environmental, Safety Health and Quality
Section 11: NCAAP – ESH&Q Integration

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 Integrated Safety Management System
 - 1.4.2 Voluntary Protection Program
 - 1.4.3 Safety Committees
 - 1.4.4 Safety Recognition
 - 1.4.5 The Plan Summary
 - 1.4.6 The Quantification Summary
- 2.0 Manpower Plans
 - 2.1 ESH&Q Integration
- 3.0 Estimate
- 4.0 Risk Plan

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

**U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION**

1. PROJECT TITLE FEMP (DEFENSE)	2. DATE OF CONTRACT 12/01/2000
3. IDENTIFICATION NUMBER DE-AC24-01OH20115	4. INDEX LINE NO. 75
5. WBS ELEMENT CODE 1.1.N.C	6. WBS ELEMENT TITLE SAFETY & HEALTH
7. APPROVED CP NO. NEW PER CP# FY01-0115-0012-00	8. DATE OF CHANGES 12/01/2000
9. SYSTEM DESIGN DESCRIPTION ENVIRON. RESTORATION	10. BUDGET AND REPORTING NUMBER EW05H3120
11. ELEMENT TASK DESCRIPTION <p><u>a. ELEMENTS OF COST:</u></p> <p>Labor Subcontractors Material ODCs</p> <p><u>b. TECHNICAL CONTENT:</u></p> <p>Primary Drivers: Fernald Closure Contract DOE Orders, Regulations, Standards, Statutes, and Directives Federal and State Laws Amended Consent Agreements (CERCLA, US EPA) Consent Decree (RCRA, State of Ohio) Federal Acquisition Regulation United States Department of Energy Acquisition Regulation</p> <p><u>c. SCOPE OF WORK:</u></p> <p>The following activities are contained within Safety and Health:</p> <p>Safety and Health (S&H) - manages the safety and health requirements program to include Lock and Tag, the Radiological Program (to include engineering and compliance), Safety Analysis, Medical Services and oversight of S&H implementation within the projects for the Fernald Environmental Management Project (FEMP) to facilitate operations, ensures compliance with applicable regulation and permits and ensures that Fluor Fernald conducts activities within approved and compliant conditions conducive to worker health and safety, and protection of the environment as detailed in RM-0016 through life of project. In addition, provides technical support through the interpretation of requirements.</p>	

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

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7. APPROVED CP NO. NEW PER CP# FY01-0115-0012-00	8. DATE OF CHANGES 12/01/2000
9. SYSTEM DESIGN DESCRIPTION ENVIRON. RESTORATION	10. BUDGET AND REPORTING NUMBER EW05H3120
11. ELEMENT TASK DESCRIPTION <p>Dosimetry - provides the bioassay laboratory for the analysis of bioassay samples collected as part of the internal dosimetry monitoring program for the FEMP site; dosimetry for the external and internal radiation monitoring of all site employees and subcontractors. Provides the radiological control instrument laboratory that maintains, calibrates and repairs the radiation monitoring and detection instruments and air sampling equipment used by the Radiological Control Department; the radiological control air monitoring laboratory that analyzes air samples taken for radiological control purposes; and the Radiological Work Permitting Group that prepares RWPs for all site radiological activities.</p> <p>Medical - provides the occupational medical program for the site population to include all Fluor Fernald employees, DOE, and subcontractors.</p> <p>Emergency Services - activities include emergency drills and exercises, administration, fire and safety, Communication Center, Emergency Response Training, and SARA and Meteorological Monitoring in the event of site emergencies.</p> <p>Quality Assurance - activities include QA management and administration; development and maintenance of the QA program, policies, and procedures; independent functional audits, verifications, and trend analysis; review and coordination of Price Anderson processes; and interface with DOE for orders and issues involving QA matters. QA also provides oversight and support for the Data Quality Group with audit, surveillance, and personnel activities.</p> <p>Operations Assurance - administers the Fluor Fernald President's Independent Safety Review Committee; maintains the Conduct of Operations, Site Operational Readiness Assessment, Lessons Learned, Required Reading, Occurrence Reporting, and Investigation programs. Evaluates, tracks, and trends data from sitewide reporting systems.</p> <p>Safety and Health Administration - provides management and oversight for all departments in the S&H Program, including: Safety and Health, Dosimetry, Medical, Emergency Services, Quality Assurance, Operations Assurance, Environmental Compliance, and S&H Integration. Also provide programmatic direction for S&H related activities to all the projects.</p>	

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9. SYSTEM DESIGN DESCRIPTION ENVIRON. RESTORATION		10. BUDGET AND REPORTING NUMBER EW05H3120	
11. ELEMENT TASK DESCRIPTION <p>Environmental Compliance - provides oversight of site compliance with environmental regulatory requirements contained in laws, rules, regulations, and legal agreements; development of environmental policy and guidance for implementing organizations; surveillance/assessments/audits of compliance status; reviews of environmental performance indicators; preparation of reports, permits, and applications; liaison with regulatory agencies; and technical support to projects.</p> <p>Safety and Health Integration - integration of the Fluor Fernald Integrated Safety Management System (ISMS), Voluntary Protection Program (VPP), Site Safety Committees, as well as other matters requiring a sitewide coordinated effort with the S&H program.</p>			

WORK SCOPE DEFINITION (Control Account)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 1
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE DEBBIE SHERBS 648-5137	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (CONTROL ACCOUNT) NCAA	13. TASK DESCRIPTION (ONE LINE) ENVIRONMENTAL SAFETY HEALTH AND QUALITY		

a. ELEMENTS OF COST:

Labor
Subcontractors
Material
ODCs

b. TECHNICAL CONTENT:

Primary Drivers:

Fernald Closure Contract
DOE Orders, Regulations, Standards, Statutes, and Directives
Federal and State Laws
Amended Consent Agreements (CERCLA, US EPA)
Consent Decree (RCRA, State of Ohio)
Federal Acquisition Regulation

c. SCOPE OF WORK:

The following activities are contained within Safety and Health:

Safety and Health (S&H) - manages the safety and health requirements program to include Lock and Tag, the Radiological Program (to include engineering and compliance), Safety Analysis, Medical Services and oversight of S&H implementation within the projects for the Fernald Environmental Management Project (FEMP) to facilitate operations, ensures compliance with applicable regulation and permits and ensures that Fluor Fernald conducts activities within approved and compliant conditions conducive to worker health and safety, and protection of the environment as detailed in RM-0016 through life of project. In addition, provides technical support through the interpretation of

Project Manager

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for George Sartell

Control Account Manager

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for George Sartell

Control Team Manager

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WORK SCOPE DEFINITION (Control Account)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
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14. ELEMENT TASK DESCRIPTION

requirements.

Dosimetry - provides the bioassay laboratory for the analysis of bioassay samples collected as part of the internal dosimetry monitoring program for the FEMP site; dosimetry for the external and internal radiation monitoring of all site employees and subcontractors. Provides the radiological control instrument laboratory that maintains, calibrates and repairs the radiation monitoring and detection instruments and air sampling equipment used by the Radiological Control Department; the radiological control air monitoring laboratory that analyzes air samples taken for radiological control purposes; and the Radiological Work Permitting Group that prepares RWP's for all site radiological activities.

Medical - provides the occupational medical program for the site population to include all Fluor Fernald employees, DOE, and subcontractors.

Emergency Services - activities include emergency drills and exercises, administration, fire and safety, Communication Center, Emergency Response Training, and SARA and Meteorological Monitoring in the event of site emergencies.

Quality Assurance - activities include QA management and administration; development and maintenance of the QA program, policies, and procedures; independent functional audits, verifications, and trend analysis; review and coordination of Price Anderson processes; and interface with DOE for orders and issues involving QA matters. QA also provides oversight and support for the Data Quality Group with audit, surveillance, and personnel activities.

Operations Assurance - administers the Fluor Fernald President's Independent Safety Review Committee; maintains the Conduct of Operations, Site Operational Readiness Assessment, Lessons Learned, Required Reading, Occurrence Reporting, and Investigation programs. Evaluates, tracks, and trends data from sitewide reporting systems.

Safety and Health Administration - provides management and oversight for all departments in the S&H Program, including: Safety and Health, Dosimetry, Medical, Emergency Services, Quality Assurance, Operations Assurance,

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(Control Account)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 3
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
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8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (CONTROL ACCOUNT) NCAA	13. TASK DESCRIPTION (ONE LINE) ENVIRONMENTAL SAFETY HEALTH AND QUALITY		

14. ELEMENT TASK DESCRIPTION

Environmental Compliance, and S&H Integration. Also provide programmatic direction for S&H related activities to all the projects.

Environmental Compliance - provides oversight of site compliance with environmental regulatory requirements contained in laws, rules, regulations, and legal agreements; development of environmental policy and guidance for implementing organizations; surveillance/assessments/audits of compliance status; reviews of environmental performance indicators; preparation of reports, permits, and applications; liaison with regulatory agencies; and technical support to projects.

Safety and Health Integration - integration of the Fluor Fernald Integrated Safety Management System (ISMS), Voluntary Protection Program (VPP), Site Safety Committees, as well as other matters requiring a sitewide coordinated effort with the S&H program.

d. WORK SPECIFICALLY EXCLUDED:

None.

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

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1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 1
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE SHARON KOHLER 648-4165	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAA	13. TASK DESCRIPTION (ONE LINE) SAFETY & HEALTH		

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODCs

b. TECHNICAL CONTENT:

Manage the Safety Management System, its requirements and initiatives, and oversee its implementation within the projects at the FEMP. Coordinate oversight activities to evaluate performance to ensure all FEMP activities are compliant to conditions conducive to worker health and safety, and protection of the environment.

Safety and Health manages safety and health requirements and initiatives and oversees their implementation within the projects for the FEMP to facilitate operations, ensure compliance with applicable regulations and permits and ensures that Fluor Fernald, Inc. conducts activities within approved and compliant conditions conducive to worker health and safety, and protection of the environment.

Nuclear and System Safety (NS) manages, administers, and provides technical oversight of the FEMP Safety and Nuclear Criticality Safety programs. NS ensures compliance with applicable contract requirements, regulations, and permits, and ensures that Fluor Fernald, Inc., conducts activities within the approved authorization/safety basis, under conditions conducive to worker health and safety, and protection of the environment.

Project Manager <i>George Sartell</i> for George Sartell	Control Account Manager <i>George Sartell</i> for George Sartell	Control Team Manager <i>Kinda Weate</i>
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1. PROJECT TITLE		2. DATE	Page 2
FEMP (DEFENSE)		12/01/2000	
3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME		
1.1.N.C	SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER	
41	SHARON KOHLER 648-4165	DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE		
EW05H3120	PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE	
NEW PER CP# FY01-0115-0012-00		12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)		
NCAAA	SAFETY & HEALTH		
14. ELEMENT TASK DESCRIPTION			
<p><u>c. SCOPE OF WORK:</u></p> <p>Nuclear Criticality Safety Analysis</p> <p>Manage and administer the FEMP Safety Analysis Program. Provide direction, technical support, review and approval of Fluor Fernald safety analysis, nuclear criticality analysis, and related activities designed to maintain compliance with Contract No. DE-AC24-010H20115; specifically S/RID Functional Area No. 9, NS, which contains DOE Orders 5480.21, 5480.22, 5480.23, 420.1, and applicable consensus standards; as well as the 10 CFR Part 820 and proposed 830 series rules. Provide technical expertise and services to the NS Functional Area Manager in maintaining NS requirements, which require that facilities and associated activities at the FEMP be the subject of safety analyses. Manage and oversee the implementation of the Fluor Fernald Nuclear Criticality Safety (NCS) and System Safety (SS) Programs.</p> <ul style="list-style-type: none"> -Maintain the Nuclear Criticality Safety Program -Perform criticality and nuclear safety analyses, -Upgrade existing NCS procedures and develop new procedures, as required. -Prepare and issue Criticality Safety Approvals (CSAs) and Nuclear Safety Operational Authorizations (NSOAs). -Provide NCS oversight and surveillance of facilities and associated activities involving enriched nuclear material. -Prepare and conduct NCS training, as required. -Assist in the preparation of Safety Analysis documents. -Prepare plans, documentation, participate in review and implementation of Price Anderson Amendment Act (PAAA) requirements for nuclear safety. -Perform reviews of technical and administrative documents. <p>System Safety Program</p> <ul style="list-style-type: none"> -Maintain the System Safety Program. -Review and approve integrated hazard analyses (IHAs), and other appropriate hazard analyses. -Upgrade existing SS procedures and develop new procedures, as required. -Review and approve Safety Assessments (SAs) and Auditable Safety Records (ASRs). 			

WORK SCOPE DEFINITION (Work Package)

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5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE SHARON KOHLER 648-4165	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
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14. ELEMENT TASK DESCRIPTION

- Review and approve Safety Analyses Reports (SARs), Technical Safety Requirements (TSRs), Safety Basis Requirements (SBRs), and Process Requirements (PRs).
- Perform Unreviewed Safety Question Determinations and Safety Evaluations (USQD/SEs) against proposed changes and discovered conditions.
- Prepare and conduct SS training, as required.
- Prepare PAAA documentation for the Safety Analysis Programs, (10 CFR Part 830, Sections 110, 112 & 320), as required.
- Perform reviews of technical and administrative documents.
- Prepare updates and obtain DOE approval of PL-3049 (Basis of Interim Operations, BIOs), on an annual basis.
- Prepare and submit to DOE a record of all Unreviewed Safety Questions on an annual basis.

Occupational Safety and Health

- Maintain and evaluate the FEMP Safety Management System (SMS).
- Ensures consistent application of Federal (29 CFR 1910 and 1926) and State (ORC) statutes and other elements identified in the Site Requirements Identification Document to employee and site activities.
- Auditing and field verification of Safety and Industrial Hygiene program elements.
- Support Safety First Initiative and Voluntary Protection Program.
- Provide prescription safety glasses and optical services.
- Perform audits and appraisals to verify implementation and compliance of OS&H program elements.
- Perform monthly safety, and housekeeping inspections at FEMP facilities.
- Develop, implement and evaluate behavior based safety.
- Manage and evaluate site Lock and Tag program.
- Administer the Workers Compensation Program.
- Oversee Safety Work Groups.

d. WORK SPECIFICALLY EXCLUDED:

It was previously assumed that all fissile (nuclear) materials would be off site

WORK SCOPE DEFINITION (Work Package)

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14. ELEMENT TASK DESCRIPTION

by the end of FY 97.. This assumption has been changed to the end of FY 2005; therefore, beginning in FY 98, all operational resources required for NS functional area requirements associated with enriched (fissile) nuclear material are excluded. Line projects responsible for fissile (nuclear) materials will be required to directly budget and fund all nuclear criticality safety efforts. Programmatic resources are still included in the workscope.

All safety analyses (SAs, ASRs, SARs, TSRs, PRs, BIOs and other Safety Analysis Program documents) and the labor and material resources necessary for preparing safety basis and authorization documents for line projects are specifically excluded from this work package and are to be directly budgeted and funded by the responsible FDF organization. Programmatic resources are still included in the workscope.

All Project specific OS&H support, including labor, materials and ODC resources are specifically excluded from this work package. These activities are to be directly budgeted and funded by the FDF Project organizations.

SECTION 1

1.0 NARRATIVE

1. PROJECT TITLE: PROGRAM SUPPORT AND OVERSIGHT	2. DATE: 09/10/01	3. PBS#: 12
4. WBS ELEMENT CODE: 1.1.N.C	5. WBS ELEMENT TITLE: ENVIRONMENT, SAFETY, HEALTH & QUALITY	
6. CAM NAME/ PHONE: GEORGE GARTRELL / 3996	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: NCAA	

PART 3: ENVIRONMENTAL, SAFETY, HEALTH AND QUALITY (NCAA)

Section 1: Safety and Health (NCAAA)

1.0 NARRATIVE

1.1 OVERVIEW

Manage the Safety Management System, its requirements and initiatives, and oversee its implementation within the projects at the FEMP. Coordinate oversight activities to evaluate performance to ensure all FEMP activities are compliant to conditions conducive to worker health and safety, and protection of the environment.

Safety and Health manages safety and health requirements and initiatives and oversees their implementation within the projects for the FEMP to facilitate operations, ensure compliance with applicable regulations and permits and ensures that Fluor Fernald, Inc. conducts activities within approved and compliant conditions conducive to worker health and safety, and protection of the environment.

Nuclear and System Safety (NS) manages, administers, and provides technical oversight of the FEMP Safety and Nuclear Criticality Safety programs. NS ensures compliance with applicable contract requirements, regulations, and permits, and ensures that Fluor Fernald, Inc., conducts activities within the approved authorization/safety basis, under conditions conducive to worker health and safety, and protection of the environment

1.2 ASSUMPTIONS/ EXCLUSIONS

1.2.1 Assumptions

1. Federal (to include 29 CFR 1910 and 1926, 10 CFR) and state statutes and other elements as identified within the contract # DE-AC24-01OH20115 and SRID.
2. DOE orders included in Contract # DE-AC24-01OH20115.

3. Evaluate applicability of external and Internal Drivers not defined by Contract # DE-AC24-01OH20115 which are determined and approved by DOE's contracting Office.
4. List of Documents and other attachments as identified in Section J within the Contract # DE-AC24-01OH20115
5. Standards/Requirements Identification Document included as attachment 2 of Contract DE-AC24-01OH20115.
6. We do not experience an exodus of skilled staff except as planned.
7. Estimate is based on 40-hour work week.
8. Estimate is based on level of effort to support project work plans
9. Training Costs, Travel Costs, Subcontract support, Materials and supplies, and taxes are included.
10. The current level of effort to support project execution plans will be maintained.
11. The work to implement any changes in driver requirements is not included in this estimate.
12. Work with customer to reduce procedures that are over and above requirements.
13. The scope changes starting the 1st quarter of 2002 through 2nd quarter 2006.

1.2.2 Exclusions

None

1.2.3 Government Furnished Equipment/ Services

DOE maintains the Computerized Accident/ Incident Reporting Service (CAIRS) and provides it to us free of charge.

1.3 DRIVERS

1. Manage and maintain the Safety and Health requirements program, the Radiological Program, Safety Analysis, Medical Services and oversee S&H implementation within the projects for the FEMP to facilitate operations as detailed in RM-0016 through life of project and stages of site projects, e.g., WPRAP, Radon Control System, Silos 1,2, AWR, Nuclear Materials Disposition, Waste Disposition.
2. Unusual, unexpected, unplanned events trigger additional need for safety and health involvement.
3. Leadership Team initiatives increase activities that involve S&H.
4. S&H will continue to support the development and Maintenance of S&H site procedures and no additional safety programs will be required at the FEMP through the project Life.
5. Manage and maintain the Nuclear and System Safety program and NS site procedures.

1.4 SCOPE OF WORK

1.4.1 Task # 1 – Safety Management

The scope of work provided by Safety Management includes the following scope

1. Oversee and manage a Safety Management System consistent with Federal (To include 29 CFR 1910 and 1926, and 10 CFR) and state statutes and other elements as identified within the SRID, and applicable DOE orders. 1250 hours/yr.
2. Oversee both a Self-Assessment initiative and independent oversight of the implementation of industrial safety, industrial hygiene, and construction safety programs. 400 hours/yr.
3. Support the Safety First Initiative, Integrated Safety Management, and the Voluntary Protection Program. 150 hours/yr.
4. Provide in-house professional development opportunities for the site safety staff. 100 hours/yr.
5. Perform functional Area Management Assessments of Occupational Safety and Health to ensure requirements are consistent with external drivers as detailed in the SRID. Perform internal independent assessments to ensure field compliance of program elements. 400 hours/yr.
6. Perform customer interaction. 400 hours/yr.
7. Perform responsibilities associated with the Authority Having Jurisdiction (AHJ) for the FEMP Site Electrical Safety Committee. 50 hours/year.
8. Review requirements identified within the SRID for application to site. Ongoing - 300 hours/yr.
9. Maintain, revise and keep current RM-0021 and the hoisting and Rigging Manual to assure delineation of requirements. Ongoing - 400 hours/yr.
10. Review, evaluate, collate, and communicate applicable External and Internal Drivers. Ongoing - 100 hours/yr.

The plan for performing the above Safety Management scope is to continue until services are modified as follows:

~~The responsibilities of the Safety manager, safety engineer and the industrial hygienist will be merged and become the responsibility of one of the Program Managers who has acceptable credentials (2 positions) and will occur during the 1st quarter of FY03 because of decreases in the areas of Mixed Waste, Nuclear Materials, and Silos. There is need for only one Program Manager from 1st quarter FY03 to 2nd quarter FY06 (1 position). Beginning in FY2002, a reduction in the number of resources necessary is~~

R1-D-001

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R1-D-001

F-12-042

evident. The number of program managers is reduced from 2 to 1 because of decrease in the areas of Mixed Waste, Nuclear Materials and Soils.

The quantification for Safety Management is based indirectly on the Fluor Fernald, Inc. project. The resource requirements for this and the correlation with the site manpower is shown in the following table.

		01	02	03	04	05	06	07	08	09	10
R1-D-002	Site Populations (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Site Comp.
	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Site Comp.
	D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D	Site Comp.
	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	Site Comp.
	WGS	WGS	WGS	WGS	WGS	WGS	WGS	WGS	WGS	WGS	Site Comp.
	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD	Site Comp.
	SCEP	SCEP	SCEP	SCEP	SCEP	SCEP	SCEP	SCEP	SCEP	SCEP	Site Comp.
F-12-042	OSDF	OSDF	OSDF	OSDF	OSDF	OSDF	OSDF	OSDF	OSDF	OSDF	Site Comp.
	Safety and Health Program Mgr	2	1	1	1	1	0	0	0	0	0

1. Task # 2 – Occupational Safety and Health

The scope of work provided by Occupational Safety and Health includes the following scope:

- Administer S&H functional area, i.e., review procedures/forms, attend meetings, complete action items, and safety glasses distribution. Ongoing – 2000 hours/yr.
- Provide prescription safety glasses and optical devices. Ongoing - 200 hours/yr.
- Maintain required databases, records, and documents relating to safety, exposures, and accident/ property loss. Ongoing - 2000 hours/yr.
- Administer the Worker's Compensation Program to include intervention. Ongoing - 2500 hours/yr.
- Provide safety literature/ training for FEMP workers and management. Ongoing - 500 hours/yr.
- Administer and perform the S&H Assessment program, to include functional Area Management Assessments of Occupational Safety and Health and Nuclear and Criticality Safety to ensure requirements are consistent with external drivers as detailed in the SRID. Perform internal independent assessments to ensure field compliance of requirements. Ongoing –4000 hours/yr.
- Perform comprehensive safety management assessments and investigations of concern as requested by the President and Leadership Team. 600 hours/yr.
- Interact with DOE onsite S&H. Ongoing - 400 hours/yr.
- Oversee the Safety Work Groups. Ongoing - 400 hours/yr.

10. Research and issue Safety and Health bulletins. Weekly/As needed - 500 hrs/yr.
11. Maintain the Safety and Health Homepage on the Intranet. Ongoing 500 hrs/yr.
12. Support the Safety First Initiative and the Voluntary Protection Program. Ongoing - 200 hours/yr.
13. Review, evaluate, collate, and communicate applicable external and internal drivers not defined by Contract # DE-AC24-01OH20115, which the Fluor Contracting Officer has determined and approved. Ongoing - 400hours/yr.

The plan for performing the above Occupational Safety and Health scope is to continue the above services until services are modified as follows:

F-12-042

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1. Maintain a strong focus on safety. In the 3rd quarter of FY06, the program maintenance, oversight and assessment functions of Environmental Compliance, Occupational Safety & Health, Integrated Safety Management, and Radiological Control will be consolidated into a single ES&H oversight organization. The clerical responsibilities will be consolidated. ~~The S&H Homepage will be discontinued (-4 positions).~~

2. The single combined S&H organization, to include Environmental Compliance, Occupational Safety & Health, Integrated Safety Management, and Radiological Control will continue to be responsible for site-wide programs in these disciplines which are driven by DOE Orders, contract, and/or external requirements.

F-12-042

- ~~3. Reduction in needs will be experienced in 4th quarter FY02 due to decrease in Nuclear material (-.5 position). In addition, the responsibilities of the safety engineer and the industrial hygienist will be merged and become the responsibilities of the Program Manager who has acceptable credentials for both (-2 positions) during the 1st quarter of FY03. This is a result of decreases in the areas of Mixed Waste, Nuclear Materials, and Silos. There is a need for only one Program Manager from 1st quarter FY03 to 2nd quarter FY06 (-1 position).~~

F-12-042

- ~~4. Additional decreases of personnel will again be experienced by the reduction of a Safety Tech in 3rd quarter FY03 (-1 position) and further reduction of a -1.5 (Overall by 1st quarter FY06). A further reduction of a tech/program support rep in 1st quarter of FY05 (-.5 position) due to Soils Excavation Project reduction. Medical will also experience a decrease in the need for .5 position for medical support during this period.~~

F-12-042

F-12-042

5. The remaining positions of Program Manager and Tech/Program Support Manager will be zeroed out by 3rd quarter of FY06.
6. In the 3rd quarter of FY03, ES&H will be located in a project organization, rather than a separate programmatic organization. The manpower required by this organization is being entered on the Environmental Compliance,

Occupational Safety & Health, Integrated Safety Management, and Radiological Control manpower sheets to ensure that the manpower requirement for this scope is captured in the baseline.

A total of 15.5 will be reduced by 3rd quarter FY06 due to the above assumptions.

7. In keeping with the consolidation of program maintenance and oversight functions of the Environmental Compliance, Occupational Safety & Health, Safety Analysis, Integrated Safety Management and Radiological Control functions, certain assumptions have been made. The functions to be consolidated have certain general functions in common such as:
 - Program Documentation
 - Record keeping/Reporting
 - (RCRA, OSHA, Workman's Comp, Radiation Exposures, Chemical Exposures)
 - Independent Assessment and Oversight
 - Permitting
 - Event Investigation
 - Compliance Training/Qualifications
8. It is assumed that as projects are completed and the population decreases, the documentation system will require fewer resources to maintain. The specifics are not known at this point, but the volume of procedures, manuals and plans that currently define each program will be significantly reduced. Similarly, as the population of workers decreases, the record keeping and reporting level of effort.
9. Independent Assessment and programmatic oversight responsibilities are proportionate to the number and activities of each project. The consolidation of ES&H functions will allow a smaller number of people, working together to accomplish the desired level of effort and independence.
10. Permitting, event investigation, and training/qualifications will be done by a smaller number of people and cover all the ES&H functions.

The quantification for Occupational Safety and Health is based indirectly on the Fluor Fernald, Inc. project and subcontractor Manpower. The resource requirements for this and the correlation with the reduction of site manpower is shown in the following table:

R1-D-002			01	02	03	04	05	06	07	08	09	10
	Site Populations (FTE)		1940	1432	1388	1133	1470	1179	814	427	239	98
R1-D-003	Active Projects	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Site Comp.
		Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Site Comp.
		D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D	Site Comp.
		WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	Site Comp.
		WGS	WGS	WGS	WGS	WGS	WGS	WGS	WGS	WGS	WGS	Site Comp.
		NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD	NMD	Site Comp.

	SCEP	SCEP				SCEP	SCEP	SCEP	SCEP	SCEP	Site Comp
	OSDF	OSDF				OSDF	OSDF	OSDF	OSDF	OSDF	Site Comp
R1-D-003	Safety and Health Program Support and Oversight	8	5	4	4	3	3	0	0	0	0
R1-D-088											
F-12-042											

1.4.3 Task # - 3 Nuclear Criticality Safety Analysis

The scope of work provided by Nuclear Criticality Safety Analysis includes the following:

1. Administer Nuclear Safety (NS) functional area, i.e., review site procedures/forms, and complete action items. Ongoing - 500 hours/yr.
2. Prepare lesson plans, coordinate and review Nuclear Criticality Safety QSE training for FEMP workers and management. Provide oversight of USQ/TR and SBDR training content. Ongoing - 500 hours/yr.
3. Administer and perform NS and Safety Analysis assessments. These include functional area assessments, self-assessments, and management assessments. These assessments ensure that requirements are consistent with external drivers; ensure field compliance of program elements; provide independent oversight of the adequacy of the implementation of the authorization/safety basis requirements; and evaluate systemic management issues that affect work processes and interfaces. NS and Safety Analysis issues nonconformances and verifies corrective actions, as appropriate. Ongoing - 2500 hours/yr.
4. Interface with internal and external auditing organizations. Develop, resolve, and close corrective action items. Ongoing - 600 hours/yr.
5. Perform SBDR/AWR/Task Order/Chemical Accountability evaluations. Ongoing - 500 hours/yr.
6. Develop, document, and distribute Nuclear Facility Safety Basis Inventory Verification, and Authorization/Safety Basis Status of FEMP Facilities. Ongoing - 600 hours/yr.
7. Perform comprehensive Nuclear Criticality and Safety surveillances. Ongoing - 1000 hours/yr.
8. Interact with DOE on site authorization/safety basis issues. Ongoing - 600 hours/yr.
9. Maintain files and records associated with documented safety analysis. Ongoing - 500 hours/yr.
10. Participate as member of PAAA Committee, ISRC, TRB, and Procedure Technical Advisory Committee. Ongoing - 500 hours/yr.
11. All labor required for training, travel, and material to perform this scope (i.e., not including non-labor costs). Ongoing - 325 hours/yr.
12. Maintain, revise, and keep current RM-0027, RM-2116, and PL-3049, as well as documented safety analysis reports. Ongoing - 1500 hours/yr.

The plan for performing the above Nuclear Criticality Safety scope is to continue the above services until services are modified as follows:

1. Maintain a strong focus on safety. The reduction in personnel will be experienced in 3rd quarter ~~FY03~~ due to a decreased need for Nuclear and System Safety requirements (~~3 positions~~) with the elimination of enriched uranium from the site.
2. ~~A reduction will be experienced in 4th quarter FY02 due to a decrease in Nuclear material (.5 position).~~ It is assumed that as projects are completed and the population decreases, the documentation system will require fewer resources to maintain. The specifics are not known at this point, but the volume of procedures, manuals and plans that currently define each program should be significantly reduced (~~1 position~~). Similarly, as the population of workers decreases, the record keeping and reporting level of effort will reduce proportionately. The remaining position of Program Manager and Tech/Program Support Manager will be zeroed out by 3rd quarter of FY06
3. PAAA evaluation is a specialty area that is also dependent on the number and activities of the projects. As the project scopes are completed, the number of data points that need PAAA evaluation will also decrease.

The quantification for Nuclear Criticality and Systems Safety is based indirectly on the Fluor Fernald, Inc. project and subcontractor Manpower. ~~Note, there is an overage of 3 FTE's for the 1st three quarters of 2002 relative to the Manpower Planning sheets due to requirement to provide administrative support for Nuclear Criticality above the line until most of the site can be downgraded to a non-nuclear facility.~~ The resource requirements for this and the correlation with the site manpower is shown in the following table:

		01	02	03	04	05	06	07	08	09	10
Site Populations (FTE)		1940	1432	1389	1133	1470	1179	814	427	239	98
Active Projects	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Site Comp
	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Site Comp
	D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D			Site Comp
	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP				Site Comp
	WGS	WGS	WGS	WGS	WGS	WGS	WGS				Site Comp
	NMD	NMD	NMD								Site Comp
	SCEP	SCEP				SCEP	SCEP	SCEP	SCEP	SCEP	Site Comp
	OSDF	OSDF				OSDF	OSDF	OSDF	OSDF	OSDF	Site Comp
Nuclear Crit & System Safety		5.5	6.5 4.5	6.5 4.5	6 4.0	6 4.0	6 4.0	0	0	0	0

SECTION 1

2.0 MANPOWER PLANS

DRIVERS		START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
201	D&D Summary	10/02/2000	03/30/2007		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
301	OSDF Summary Schedule	04/01/2004	12/23/2009																									
411	AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
502	WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
601	Soils Excavation Project Summary	10/01/2003	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
704	Silos AWR Summary	10/02/2000	10/23/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
710	Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
Project Management		Program Mgr.		26.00	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0					
Administration		Clerks		15.00	3	3	3	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0					
Project Management		Tech/Program Support Mgr.		22.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0					
Environmental Safety & H		Safety Engineer		4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Environmental Safety & H		Safety Tech.		4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Project Management		Tech/Program Support Rep.		129.00	2.5	2.5	3.5	3.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	0					
Administration		Department Administrator		4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Environmental Safety & H		Industrial Hygienist		4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Project Management		Project Mgr.		0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Information Management		Information Records Rep.		0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Project Management		Tech/Program Support Rep.		0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Administration		Technical Writer		4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Environmental Safety & H		Rad Engineer		2.00	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
QA/QC		QA Engineer		18.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0					
Medical		Medical Support		2.00	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Sheet Totals:				234.00	15.50	15.50	16.50	15.50	10.50	10.50	10.50	10.50	9.50	9.50	9.50	9.50	9.50	8.50	8.50	8.50	8.50	0.00	0.00					

Sheet Totals:

MPS #	1NC01	ES&H MGMT OS&H
1	1	1
2	2	2
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[illegible]

SECTION 1

3.0 ESTIMATE

NCAAA

SAFETY & HEALTH

Fluor Fernald, Inc.

DATE: 10-Sep-01

PBS: 12
 WBS: 1.1.N.C.
 CTRL ACCT: NCAA
 CHARGE NO: NCAA
 COMMENT NO:12-044, 12-053, 12-060

ESTIMATE SUPPORT WORKSHEET
 FOR ACTIVITY BASED ESTIMATING
 (1 FTE EQUALS 1747 HOURS)

PROJECT MGR: SHARON KOHLER
 CAM: DANNY WHITAKER-SHEPPARD
 PREPARED BY: TRACY BRAUN
 FISCAL YEAR: FY01 - FY10

Resource:	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS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Resource: DEPADM
 Res Dept: DEPT ADMINISTRATOR

	Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04
Yr Hours:	1,452.0	0.0	0.0	0.0
Cum Hours:	1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:	46,043	0	0	0
Cum Total Cost:	46,043	46,043	46,043	46,043

Resource: INDHYG
 Res Dept: INDUSTRIAL HYGIENIST

	Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04
Yr Hours:	1,452.0	0.0	0.0	0.0
Cum Hours:	1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:	67,402	0	0	0
Cum Total Cost:	67,402	67,402	67,402	67,402

Resource: MAT300
 Res Dept: MATERIAL OBJCLASS300

	Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10
Yr Units:	72,533.1	48,597.1	36,267.1	18,134.0	9,067.0	4,534.0	4,534.0	4,534.0	4,534.0	0.0
Cum Units:	72,533.1	121,130.2	157,397.3	175,531.3	184,598.3	189,132.3	193,666.3	198,200.3	202,734.3	202,734.3
Yr Total Cost:	72,533	49,909	38,252	19,662	10,106	5,200	5,351	5,506	5,666	0
Cum Total Cost:	72,533	122,442	160,694	180,356	190,463	195,663	201,014	206,520	212,186	212,186

Resource:	MEDREP	MEDICAL SUPPORT		EOC:		LABOR	
Res Dept:		Overtime:	Class:	SAL			
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06
Yr Hours:		726.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:		726.0	726.0	726.0	726.0	726.0	726.0
Yr Total Cost:		26,768	0	0	0	0	0
Cum Total Cost:		26,768	26,768	26,768	26,768	26,768	26,768

Resource:	ODCTRVL	TRAVEL RESOURCE		EOC:		ODC	
Res Dept:		Overtime:	Class:	ODC			
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06
Yr Units:		36,577.0	24,507.0	18,288.0	9,144.0	4,572.0	2,286.0
Cum Units:		36,577.0	61,084.0	79,372.0	88,516.0	93,088.0	95,374.0
Yr Total Cost:		36,577	25,169	19,289	9,914	5,096	2,622
Cum Total Cost:		36,577	61,746	81,035	90,949	96,045	98,667

Resource:	PROMGR	PROGRAM MGR		EOC:		LABOR	
Res Dept:		Overtime:	Class:	SAL			
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06
Yr Hours:		2,904.0	1,747.0	1,747.0	1,747.0	1,747.0	829.0
Cum Hours:		2,904.0	4,651.0	6,398.0	8,145.0	9,892.0	10,721.0
Yr Total Cost:		273,005	172,871	183,105	193,901	205,395	104,131
Cum Total Cost:		273,005	445,876	628,981	822,882	1,028,277	1,132,408

Resource:	QACENG	QA ENGINEER		EOC:		LABOR	
Res Dept:		Overtime:	Class:	SAL			
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06
Yr Hours:		1,452.0	1,747.0	1,747.0	1,747.0	822.0	0.0
Cum Hours:		1,452.0	3,199.0	4,946.0	6,693.0	7,515.0	7,515.0
Yr Total Cost:		66,734	84,514	89,517	94,795	47,247	0
Cum Total Cost:		66,734	151,248	240,765	335,560	382,807	382,807

Resource: RAD ENG
Res Dept:

	RAD ENGINEER Overtime:		Class:		EOC: SAL		LABOR		EOC: SAL		LABOR	
	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-	Oct 09-	Oct 09-
	Yr Hours:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 10
	726.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0	726.0
Yr Total Cost:	34,267	0	0	0	0	0	0	0	0	0	0	0
Cum Total Cost:	34,267	34,267	34,267	34,267	34,267	34,267	34,267	34,267	34,267	34,267	34,267	34,267

Resource: S&HENG
Res Dept:

	SAFETY ENGINEER Overtime:		Class:		EOC: SAL		LABOR		EOC: SAL		LABOR	
	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-	Oct 09-	Oct 09-
	Yr Hours:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 10
	1,452.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:	72,179	0	0	0	0	0	0	0	0	0	0	0
Cum Total Cost:	72,179	72,179	72,179	72,179	72,179	72,179	72,179	72,179	72,179	72,179	72,179	72,179

Resource: S&HTEC
Res Dept:

	SAFETY TECH Overtime:		Class:		EOC: SAL		LABOR		EOC: SAL		LABOR	
	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-	Oct 09-	Oct 09-
	Yr Hours:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 10
	1,452.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:	41,977	0	0	0	0	0	0	0	0	0	0	0
Cum Total Cost:	41,977	41,977	41,977	41,977	41,977	41,977	41,977	41,977	41,977	41,977	41,977	41,977

Resource: TECWRT
Res Dept:

	TECHNICAL WRITER Overtime:		Class:		EOC: SAL		LABOR		EOC: SAL		LABOR	
	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-	Oct 09-	Oct 09-
	Yr Hours:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 10
	1,452.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:	65,558	0	0	0	0	0	0	0	0	0	0	0
Cum Total Cost:	65,558	65,558	65,558	65,558	65,558	65,558	65,558	65,558	65,558	65,558	65,558	65,558

Resource:	TPSMGR	TECH/PROG SUPT MGR	Class:		EOC:	LABOR											
Res Dept:		Overtime:			SAL												
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-						
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10						
Yr Hours:		1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	829.0	0.0	0.0	0.0	0.0						
Cum Hours:		1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	9,269.0	9,269.0	9,269.0	9,269.0	9,269.0						
Yr Total Cost:		90,663	114,818	121,615	128,786	136,420	69,162	0	0	0	0						
Cum Total Cost:		90,663	205,481	327,097	455,883	592,303	661,465	661,465	661,465	661,465	661,465						

Resource:	TPSREP	TECH/PROG SUPT REP	EOC:		LABOR									
Res Dept:		Overtime:	Class:	SAL										
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-			
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10			
Yr Hours:		4,513.0	11,355.5	11,355.5	11,355.5	11,355.5	5,368.5	0.0	0.0	0.0	0.0			
Cum Hours:		4,513.0	15,868.5	27,224.0	38,579.5	49,935.0	55,323.5	55,323.5	55,323.5	55,323.5	55,323.5			
Yr Total Cost:		234,495	621,056	657,822	696,607	737,902	374,102	0	0	0	0			
Cum Total Cost:		234,495	855,551	1,513,373	2,209,981	2,947,883	3,321,985	3,321,985	3,321,985	3,321,985	3,321,985			

GRAND TOTALS:

		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-		
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10		
Yr Hours:		22,947.0	18,343.5	16,596.5	16,596.5	15,671.5	7,046.5	0.0	0.0	0.0	0.0		
Cum Hours:		22,947.0	41,290.5	57,887.0	74,483.5	90,155.0	97,201.5	97,201.5	97,201.5	97,201.5	97,201.5		
Yr Total Cost:		1,221,707	1,112,267	1,109,601	1,143,666	1,142,167	555,218	8,049	8,282	8,523	0		
Cum Total Cost:		1,221,707	2,333,974	3,443,574	4,587,240	5,729,407	6,284,625	6,292,674	6,300,957	6,309,479	6,309,479		

CAM SP Recommended for George Santillo CONTROL TEAM Jinda Woste

SECTION 1

4.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: Environmental Safety, Health & Quality		PBS Number: 12		Total Baseline Dollars (Minimum Case): \$73,421,173	
Evaluator: Gartrell		WBS Number: 1.1.N.C			
CAM: Gartrell		Date: 4/23/01			
Control Account Number: NCAA		Potential Impact			
Risk and/or Opportunity		Internal Or External Driver		Impact Cost \$ (Maximum Case)	
Risk Impact Level		Risk Probability %		Risk Probability Level	
Probable Cost \$ (Likeliest Case)		Risk Critical Value		Risk Handling Strategy	
NCAA					
Occupational S & H (NCAAA)	Critical Projects slips 1 year	Internal	\$432,000	3	50
Occupational S & H (NCAAA)	Non-Critical Projects slips 1 year	Internal	\$108,000	3	96
NCAAB					
ES&H Rad Control (NCAAB)	Critical Project slips 1 year	Internal	\$300,000	3	50
NCAAC					
Medical Department (NCAAC)	Critical Projects slips 1 year	Internal	\$1,140,000	3	50
NCAAK					
ConOps/PreOp (NCAAK)	Critical Project slips 1 year	Internal	\$650,000	3	50
NCAAL					
ESH&Q Administration (NCAAL)	1 year slip	Internal	\$500,000	3	50
NCAAM					
Environmental Compliance (NCAAM) Oversight & Support	Critical Project slips 1 year	Internal	\$880,000	3	50
Environmental Compliance (NCAAM) Regulatory milestones	Schedule slippages could result in missed or delayed milestones.	Internal	\$100,000	2	20
NCAAP					
ESH&Q Integration (NCAAP)	Critical Project slips 1 year	Internal	\$275,000	3	50
NCAAE					
Emergency Response (NCAAE)	Critical Projects slips 1 year	Internal	\$760,000	3	50

Risk/Opportunity Identification and Analysis Form

Project: Environmental Safety, Health & Quality		PBS Number: 12		Total Baseline Dollars (Minimum Case):		\$73,421,173			
Evaluator: Gartrell		WBS Number: 1.1.NC							
Date: 4/23/01		Control Account Number: NCAA							
Risk and/or Opportunity		Potential Impact							
Project Task	Internal Or External Driver	Impact Cost \$ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost \$ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy	
Communications Center (NCAAE)	Critical Projects slips 1 year	Maintenance/ Upgrades to equipment not already covered in moving Comm Center	Internal	\$50,000	3	50	3	\$25,000	4 Accept
Emergency Preparedness (NCAAE)	Critical Projects slips 1 year	Additional labor/ materials/ subcontracts for 1 year	Internal	\$200,000	3	50	3	\$100,000	4 Accept
NCAAH									
Quality Assurance (NCAAH)	Critical Project slips 1 year	Increased Labor Cost	Internal	\$900,000	3	50	3	\$450,000	4 Accept
Quality Assurance (NCAAH)	FY03 PAAA Violations	Fines	Internal	\$250,000	2	25	2	\$62,500	2 Accept
Total:				\$6,545,000				\$3,228,600	

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 1
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE STU HINNEFELD 648-4358	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAB	13. TASK DESCRIPTION (ONE LINE) DOSIMETRY		

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODCs

b. TECHNICAL CONTENT:

This organization develops and maintains sitewide programs to implement the requirements of the Radiation Protection Functional Area. This task includes ensuring that site programs comply with relevant regulations and S/RIDs, communicating programs to the site population, and reviewing site work to ensure that programmatic requirements are being implemented. This organization also participates in the site's PAAA program, screening events, deficiencies, and occurrences to determine if they are noncompliances with 10 CFR 835, and determining whether noncompliances should be reported on the Noncompliance Tracking System (NTS).

This organization also provides a number of services to site organizations engaged in radiological work. These services include: personnel radiation exposure monitoring for both internal and external radiation exposures; maintenance of records of personnel radiation exposures; specification of occupational radiation monitoring instrumentation to be used on the site; maintenance, repair, and calibration of occupational radiation monitoring instrumentation; collection of air samples from areas where personnel exposure is not monitored to ensure that personnel monitoring is not required in those areas; analysis of job specific and breathing zone air samples collected by projects; occupational radon and thoron monitoring in the process areas of the site; and preparation of Radiation Work Permits for radiological work performed at the site.

Project Manager <i>STH Hinnfeld</i> for George Sartell	Control Account Manager <i>STH Hinnfeld</i> for George Sartell	Control Team Manager <i>Linda Wroste</i>
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WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE STU HINNEFELD 648-4358	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAB	13. TASK DESCRIPTION (ONE LINE) DOSIMETRY		

c. SCOPE OF WORK:

Activities within the Dosimetry and Instrumentation Section include:

Bioassay Laboratory - Provides for the analysis of bioassay samples collected as part of the internal dosimetry monitoring program for a work population of approximately 2,000 personnel. Routine samples are collected and analyzed for total uranium using a laser based kinetic phosphorescence method. Other special samples are collected and processed on an "as required" basis. The routine bioassay monitoring program is conducted in accordance with the requirements of 10 CFR 835. Perform approximately 2000 in vivo exams per year. Schedule, distribute and track approximately 12,000 urinalyses per year. Ensure all incident investigation reports are completed and filed (approximately 200 reports annually). Update Database for all urinalysis results.

Dosimetry - Provides external and internal radiation dosimetry for all site employees and subcontractors in accordance with 10 CFR 835. The dosimetry section conducts the personnel monitoring programs for in vivo bioassay, thermoluminescent dosimetry, air sampling, nuclear accident dosimetry, and ambient monitoring of radon, thoron and their decay products. Dosimetry evaluates and interprets all bioassay and air sampling results. Exposure assessments are performed as required for confirmed positive results. All personnel radiation exposure records generated from the monitoring programs are maintained and reports are provided in accordance with DOE requirements. Exchange and process approximately 2,500 routine whole body thermoluminescent dosimeters (WBTD) on a quarterly basis and approximately 600 visitor and special WBTDs on a monthly basis. Conduct quarterly DOE Laboratory Accreditation Program intercomparisons or studies.

Radiological Records Group - Maintains and operates the FEMP site Health Physics Information (HIS) System. In addition to providing for the site access control, the HIS system contains computerized records associated with personnel monitoring (both internal and external) respirator qualification information and

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 3
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE STU HINNEFELD 648-4358	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	

12. TASK IDENTIFICATION (WORK PACKAGE) NCAAB	13. TASK DESCRIPTION (ONE LINE) DOSIMETRY
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14. ELEMENT TASK DESCRIPTION

visitor exposure results.

Air Monitoring Laboratory - The air monitoring laboratory measures all air samples that are taken in support of the occupational radiation protection program, including job specific, general area and breathing zone air samples. Routine reports are generated and provided to field personnel. In addition, routine measurements of occupational radon and thoron progeny in the workplace is performed. The Air Monitoring Laboratory provides qualitative isotopic analysis of air filters and other sampling media using alpha and gamma spectroscopy.

Radiological Control Instrument Laboratory (RCIL) - Maintains, calibrates, and repairs the radiation monitoring and detection instruments and air sampling equipment used by the Radiological Control personnel. Inventories of spare parts are maintained to effect timely repairs. Additional instruments are purchased as needed to replace damaged units and to enhance the department's measurement capabilities. Prospective new instruments are evaluated and procured as needed. Training is provided on instrumentation to Radiological Control Technicians. Records of instrument, repair and calibration are maintained. The instrument shop manpower and equipment budget is based on the repair and/or calibration of approximately 500 instruments per month, including several air samples. In addition, the RCIL Services all low background alpha/beta counters and sealers used on site. Assistance is also provided to Medical, Industrial Hygiene and Environmental Monitoring personnel on an as needed basis.

Radiological Work Permit Group - Prepares approximately 400 Radiation Work Permits (RWPs) annually, utilizing task descriptions and radiological surveys that describe conditions in work areas, updates information in access control segments of HIS-20 database, and evaluates approximately 1600 Task Orders and Maintenance Work Requests annually in order to determine if work can be done under existing RWP or if new RWP is needed.

Beginning in FY02, the following scope of work will be added:

Radiological Compliance Group - Develops and maintains sitewide programs to implement the requirements of the Radiation Protection Functional Area. This

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE STU HINNEFELD 648-4358	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAB	13. TASK DESCRIPTION (ONE LINE) DOSIMETRY		

14. ELEMENT TASK DESCRIPTION

task includes ensuring that site programs comply with relevant regulations and S/RIDs, communicating programs to the site population, and reviewing site work to ensure that programmatic requirements are being implemented. This organization also participates in the site's PAAA program, screening events, deficiencies, and occurrences to determine if they are noncompliances with 10 CFR 835, and determining whether noncompliance should be reported on the Noncompliance Tracking System (NTS).

d. WORK SPECIFICALLY EXCLUDED:

None.

SECTION 2

1.0 NARRATIVE

2.0 PROJECT TITLE: PROGRAM SUPPORT AND OVERSIGHT	2. DATE: 09/10/01	3. PBS#: 12
4. WBS ELEMENT CODE: 1.1.N.C	5. WBS ELEMENT TITLE: ENVIRONMENT, SAFETY, HEALTH & QUALITY	
6. CAM NAME/ PHONE: GEORGE GARTRELL / 3996	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: NCAA	

PART 3: ENVIRONMENT, SAFETY, HEALTH, AND QUALITY (NCAA)

Section 2: SAFETY AND HEALTH, RADIOLOGICAL CONTROL (NCAAB)

1.0 NARRATIVE

1.1 OVERVIEW

This organization develops and maintains sitewide programs to implement the requirements of the Radiation Protection Functional Area. This task includes ensuring that site programs comply with relevant regulations and S/RIDs, communicating programs to the site population, and reviewing site work to ensure that programmatic requirements are being implemented. This organization also participates in the site's PAAA program, screening events, deficiencies, and occurrences to determine if they are noncompliances with 10 CFR 835, and determining whether noncompliances should be reported on the Noncompliance Tracking System (NTS).

This organization also provides a number of services to site organizations engaged in radiological work. These services include: personnel radiation exposure monitoring for both internal and external radiation exposures; maintenance of records of personnel radiation exposures; specification of occupational radiation monitoring instrumentation to be used on the site; maintenance, repair, and calibration of occupational radiation monitoring instrumentation; collection of air samples from areas where personnel exposure is not monitored to ensure that personnel monitoring is not required in those areas; analysis of job specific and breathing zone air samples collected by projects; occupational radon and thoron monitoring in the process areas of the site; and preparation of Radiation Work Permits for radiological work performed at the site.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

- ~~1. 10 CFR 835, "Occupational Radiation Protection," effective on December 4, 1998, the regulation that governs radiation protection at DOE facilities, will continue to be the controlling regulation and will not change significantly during the duration of the FEMP project.~~

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2. The site's Radiological Protection Program Plan (the required implementation plan for 10 CFR 835), dated June 2, 1999, will not change significantly during the duration of the FEMP project.
3. The other Standards and Requirements listed in Section J, Attachment 2 of contract DE-AC24-01OH20115, will not change significantly from those listed in November 2000 during the duration of the FEMP Project. In addition to 10 CFR 835, those Standards and Requirements are:
 - DOE Order 231.1, chg 2, Contractors Requirements Document (CRD) sections 5, 6, and 7.
 - DOE Order 5400.5, chg 2, Chapter IV, paragraph 4(d), "Surface Contamination."
 - ANSI N43.3-1999.
 - ANSI N323-1978.
 - DOE-STD-1098-99, only the articles listed on the attached sheet.
4. TLDs will be processed "in-house." This capability will be relocated when the Safety & Health Building is abandoned.
5. Urinalysis by kinetic phosphorescence analysis (KPA) will continue to be the site's primary bioassay technique, and will be accomplished in-house. This capability will be relocated when the Safety & Health Building is abandoned.
6. Routine in vivo monitoring will continue until the former production buildings, including the old Pilot Plant, are demolished. This will occur before the site In Vivo Facility is abandoned. After that time, any required in vivo analysis (termination counts for selected populations, perhaps) will be performed by a vendor (presumable University of Cincinnati).
7. Maintenance, repair, and calibration of occupational radiation monitoring instrumentation will continue to be performed in-house. This activity will be relocated when the Safety & Health Building is abandoned.
8. Occupational radiological air monitoring will continue for the duration of the FEMP project, and consequently, so will the requirement for air sample counting capability. This activity will be relocated when the Laboratory Building is abandoned.
9. Occupational radon and thoron monitoring will continue for the duration of the FEMP project and will be relocated when the Safety & Health Building is abandoned.
10. The site's Radiation Work Permitting process will not change significantly.
11. The site will continue to utilize the radiological access control features of the HIS-20 software.
12. The site's Price-Anderson Act Amendments (PAAA) program will continue for the duration of the FEMP project.
13. Site activities will continue to be performed in accordance with programmatic, sitewide requirements in the Radiological Protection Functional Area.

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14. In FY06 responsibility ~~for most or~~ all programmatic ES&H Rad Control scope will be transferred to the Silos Project, ~~however in this Baseline the scope and budget for this function are included in PBS-12 through project completion.~~

15. In the 3rd quarter of FY06, ~~the program maintenance and oversight functions.~~ ~~most or all of the programmatic activities~~ of Environmental Compliance, Occupational Safety & Health, Safety Analysis, Integrated Safety Management, and Radiological Control will be consolidated into a single ~~programmatic ES&H oversight~~ organization, and assigned to the Silos Project. ~~The oversight and assessment functions of these disciplines may be assigned to Silos Project at that time, or may be retained in a separate oversight organization.~~ This organization will continue to be responsible for sitewide programs in these disciplines, even though it will be located in a project organization, rather than a separate programmatic organization. The manpower required by this organization is being entered on the Environmental Compliance, Occupational Safety & Health, Integrated Safety Management, and Radiological Control manpower sheets, however, to ensure that the manpower requirement for this scope is captured in the baseline effort.

16. In the 3rd quarter of FY06, the responsibility for internal and external dosimetry, air sample counting, instrument calibration and maintenance, Radiation Work Permit preparation, and associated record keeping will also be transferred to the Silos Project. The manpower required to accomplish that scope is being entered on the Radiological Control manpower sheets, however, to ensure that the manpower requirement is captured in the baseline effort.

17. In keeping with the consolidation of ~~program maintenance and oversight~~ ~~programmatic~~ functions of the Environmental Compliance, Occupational Safety & Health, Safety Analysis, Integrated Safety Management and Radiological Control functions, certain assumptions have been made. The functions to be consolidated have certain general functions in common such as:

- Program Documentation
- Record keeping/Reporting
(RCRA, OSHA, Workman's Comp, Radiation Exposures, Chemical Exposures)
- ~~Independent Assessment and Oversight~~
- Permitting
- Event Investigation
- PAAA Evaluation (Rad, SA)
- Compliance Training/Qualifications

~~Independent assessment and oversight functions of these disciplines may also be included in this consolidation or may be consolidated elsewhere in an independent oversight organization.~~

18. It is assumed that as projects are completed and the population decreases, the documentation system is also streamlined requiring

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fewer resources to maintain. The specifics are not known at this point, but the volume of procedures, manuals and plans that currently define each program will be significantly reduced. Similarly, as the population of workers decreases, the record keeping and reporting level of effort will assumedly reduce proportionately.

19. Independent Assessment and programmatic oversight responsibilities are proportionate to the number and activities of each project. The consolidation of ES&H functions will allow a smaller number of people, working together to accomplish the desired level of effort and independence.
20. Permitting, event investigation and training/qualifications are functions which each group currently performs that with a consolidated organization can be done by a smaller number of people and cover all the ES&H functions.
21. PAAA evaluation is a specialty area which is also assumedly dependent on the number and activities of the projects. As the project scopes are completed, the number of data points which need PAAA evaluation will also decrease.

1.2.2 Exclusions

1. The collection of job-specific and breathing zone air samples is excluded.
2. Purchase of radiological monitoring instrumentation required to establish new control points (notably Personnel Contamination Monitors [PCMs]) is excluded. Setting up and calibrating existing PCMs in new locations is not excluded.
3. Purchase of specialty radiological monitoring instruments for unique applications by a specific project is excluded.
4. Project-specific Radiological Control activities (typically, activities performed by Radiological Engineers and Radiological Control Technicians) are excluded.

1.2.3 Government Furnished Equipment/Services

None

1.3 DRIVERS

1. The driver for the uranium urinalysis program is the number of people performing work involving uranium compounds, uranium-bearing wastes, demolition of buildings that are contaminated with uranium, and remediation of soils that are contaminated with uranium.
2. Those same activities drive the job-specific and breathing zone air sampling programs and radon thoron monitoring programs to a certain degree. Unlike the urinalysis program, work with thorium and thorium-contaminated wastes also drive these air sampling programs,

generally requiring more samples per unit of work than work with uranium does. WPRAP, Silos remediation, and thorium waste disposition will all be significant drivers for air sampling and radon/thoron monitoring programs. The number of job-specific air samples and the number of radon and thoron monitors depend mainly on the number of work activities underway, and the amount of area potentially affected by those activities. The number of breathing zone air samples depends mainly on the number of people working on these activities.

3. The TLD program is driven by the number of people working on Silos remediation, thorium waste handling, uranium waste handling, nuclear materials handling, production building demolition, and perhaps waste pits remediation.
4. Any radiological work requires radiological monitoring instrumentation, and therefore drives the radiological instrument maintenance, repair, and calibration program.
5. Any radiological work drives the Radiation Work Permit program.
6. The number of workers engaged in handling of nuclear material, thorium-bearing materials, and containerized uranium-bearing wastes, as well as demolition of production buildings, drive in vivo monitoring.
7. Any radiological work drives the requirement to implement and maintain a radiological protection program that complies with 10 CFR 835 and any other requirements specified in the contract (often referred to as any requirement in the S/RID). In other words, radiological work drives the requirements to maintain sitewide Radiation Protection documentation, ensure sitewide compliance with programmatic requirements, review deficiencies to determine PAAA applicability, and provide guidance and assistance to projects.

1.4 SCOPE OF WORK

By Individual Subtask, through end of FY05.

The scope of work for the programmatic Radiological Control organization through FY05 is described by subtask in this section. This narrative includes a discussion of how manpower is expected to change over the years as site work activities change. For the years FY06 and beyond, the programmatic Radiological Control organization will have contracted to the point that a single, consolidated organization will remain. This consolidation, coupled with the need for the remaining personnel each to work on multiple subtasks, makes it more appropriate to discuss scope of work from FY06 on as a single task, rather than by subtask. Consequently, section 1.4.2 describes the scope of work from FY06 for the remainder of the project.

Each subtask in 1.4.1 includes a discussion of the parameters that drive the quantity of work required in that subtask. This information is also presented in Table 1.

1.4.1 Task #1 – Provide External Personnel Radiation Exposure Monitoring

The scope of work provided by External Dosimetry in FY 01 is to provide personnel external radiation monitoring for radiation workers and the limited number of monitored visitors. This includes performing the necessary QA/QC activities, and investigating exposures when dosimeter readings are not available or reliable (e.g., when dosimeters are lost or damaged). This includes the following scope:

- Prepare, issue, exchange, and process 3000 whole body dosimeters, 100 extremity dosimeters, and 150 environmental dosimeters per quarter.
- Calibrate 2 automatic TLD readers twice a year.
- Generate element correction factors for the entire TLD inventory – 9000 whole body, 800 extremity, and 600 environmental – once every 2 years.
- Perform quarterly backups of the TLD processing database.
- Conduct quarterly intercomparisons of TLD results.
- Maintain DOELAP accreditation for whole body, extremity and neutron dosimetry.
- Perform investigations for 400 TLDs per year.
- Provide Nuclear Accident Dosimetry with radiation workers' dosimeters.
- Develop, maintain, and comply with training and qualification program for external dosimetry staff.

The External Dosimetry budget provides for: a maintenance agreement for the TLD processing software (\$5000/year); a service agreement with Panasonic for the 2 automatic TLD readers (\$15,000/year); irradiations by a contract laboratory for quarterly intercomparisons (\$15,000/year); the purchase of 500 TLDs per year to replace lost, damaged, and worn out TLDs (\$10,000/year); purchase of replacement equipment (\$15,000/yr) and the periodic calibration of the onsite irradiator (\$2000 once every 5 years). In addition, external dosimetry must undergo evaluation by the Department of Energy Laboratory Accreditation Program (DOELAP) every other year in order to maintain accreditation. Using accredited dosimetry is a requirement of 10 CFR 835. Preparations for this evaluation typically involve verification calibrations that cost about \$15,000. This evaluation last occurred in FY00, and is expected to be incurred again in each even-numbered fiscal year.

NOTE: The combined manpower required to accomplish Subtasks 1 and 3 should be roughly proportional to the number of dosimeters issued. The decline in manpower levels in these subtasks is based on current judgement about how the population that is monitored for external radiation exposure will change.

At recent levels of activity (roughly 3000 whole body dosimeters, 100 extremity dosimeters, and 150 environmental dosimeters per quarter), the manpower requirement is:

Health Physics Technician:	1813 hrs/yr
Rad Tech:	1813 hrs/yr
Clerk:	1813 hrs/yr

In FY01-3Q, the elimination of the requirement for TLDs for visitors to the Controlled Area will reduce the total effort needed by 1813 hrs, eliminating one position. Job duties are sufficiently interchangeable that any of the three full-time positions could be eliminated, but it is expected that the Rad Tech position will be eliminated. The staff that maintains records of personnel radiation exposure (subtask #3 below) is available to assist this subtask during peak periods.

Manpower requirement at that time becomes:

Health Physics Technician: 1813 hrs/yr
Clerk: 1813 hrs/yr

~~In FY04-1Q, completion of Waste Generator Services activities will decrease the demand for external dosimetry. External Dosimetry and Radiological Records activities are closely linked, so sharing resources between these subtasks will result in a reduced manpower requirement for this subtask at that time:~~

~~Health Physics Technician: 1813 hrs/yr
Clerk: 907 hrs/yr~~

~~In FY02-1Q further efficiencies will prevent reduction of the Clerk position with any necessary clerical support being provided by personnel slotted for radiological records management manpower requirements at that time will be:~~

~~Health Physics Technician: 1813 hrs/yr~~

In FY06-1Q, WPRAP will be complete and the Lab/Pilot Plant Demo will be complete. Consequently, the demand for services from programmatic Rad Con (notably internal dosimetry, instrument maintenance and calibration, and air sample analysis) will be substantially reduced, and the organization consolidated. Consequently, manpower from FY06-1Q through the end of the project is addressed separately, at the end of this section.

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
1 External Monit # of TLDs	3250	2000	1200	800	800	400	400	100	0	0
FTEs	3	2 1.0	2 1.0	1.5 1.0	1.5 1.0	1.5 1.0	1.5 1.0	0	0	0
Materials	25,000	25,000	15,000	10,000	10,000	2,000	2,000	0	0	0
Subcont	37,000	37,000	52,000	37,000	37,000	15,000	15,000	5,000	0	0

1.4.2 Task #2 – Provide Internal Personnel Radiation Exposure Monitoring

In Vivo Examination Center

The scope of work provided by the staff of the In Vivo Examination Center is to perform in vivo examinations of radiation workers, including necessary QC/QA functions; perform a variety of administrative functions related to the urinalysis bioassay program; update electronic records of historical radiation exposures; and

assess in vivo and urinalysis results in order to evaluate personnel internal radiation exposures. This includes the following scope:

- Perform approximately 2000 in vivo lung examinations per year, including required data reviews.
- Perform daily energy calibration/quality control checks of the in vivo measurement system, including data review and control charting.
- Calibrate in vivo measurement system at least annually, or as needed based on system performance.
- Perform lung examinations for other DOE facilities in support of incidents (as needed).
- Perform miscellaneous small repairs on equipment associated with the in vivo measurement system; detector repair is performed by the manufacturer; major electronics repair is performed by Canberra under service agreement.
- Maintain DOELAP accreditation of the in vivo measurement system.
- Maintain the in vivo examination schedule and uranium urinalysis schedule for all Radiation Worker IIs onsite, including verifying compliance with required monitoring frequency.
- Input and verify approximately 12,000 uranium urinalysis results into the HIS20 database.
- Collect and ship special bioassay samples sent offsite for analysis, and enter results into HIS20 database.
- Develop, review, and maintain all relevant department procedures.
- Develop, maintain, and comply with training and qualification standards for internal dosimetry staff.
- Interpret bioassay results, perform internal dose evaluations, and prepare internal dose reports.
- Maintain technical basis documents and Quality Assurance Plan for the Internal Dosimetry Program, in accordance with DOELAP requirements.
- Report positive bioassay results and dose evaluation results to employees and Fluor Fernald management.
- Develop special bioassay programs for FEMP projects, as needed.

The budget associated with in vivo monitoring includes: purchase of liquid nitrogen (\$18,000/year); in vivo detector repair, and new detectors as needed (\$15,000/year); laundry service for in vivo modesty clothing and replacement modesty clothing(\$11,000/year); service agreement with Canberra for the in vivo measurement system not including the detectors (\$18,000/year); replacement electronic components, as needed; miscellaneous parts for the in vivo measurement system (e.g., fill hoses, swagelock fittings, cables, oxygen sensors, etc.; \$1500/year); miscellaneous supplies and shipping costs (\$2000/year); and onsite Maintenance department support.

Bioassay Laboratory

The bioassay laboratory analyzes urine samples for uranium as part of the internal dosimetry monitoring program. It maintains three CHEMCHEK Kinetic Phosphorescence Analyzers (KPA) and associated sample changers for sample analysis. Prior to analysis, urine samples are processed by a wet-ashing procedure using oxidizing reagents in a fume hood and subsequent firing in a muffle furnace. Two hoods and furnaces are used. Hotplates, water baths, and various measuring devices are maintained in support of the operation.

- Maintain and perform minor repairs on KPA units and sample changers and ancillary equipment.
- Calibrate KPAs daily.
- Calibrate laboratory measuring devices, such as analytical balances and pipettes.
- Prepare laboratory standards.
- Collect urine samples and associated sample request cards. Record final results on cards and submit them for data entry.
- Process urine samples and quality control samples and perform analysis on the KPA.
- Document laboratory activities and results in logbooks and reports, including reports for positive bioassay results.

The budget for the bioassay lab includes miscellaneous laboratory chemicals and equipment and costs for repairing equipment such as KPAs or muffle furnaces, as needed (\$160,000/yr).

(NOTE: The manpower required to accomplish this subtask should be roughly proportional to the number of personnel monitored for internal radiation exposure, or the number of Rad Worker 2s on the site. However, the internal dosimetrist manpower requirement depends less on number of monitored individuals and more on the amount of work with significant potential for internal exposure. Manpower reductions are based on current judgement about how the monitored workforce will decline, and how much internal dose assessment will be required for the various projects relative to today.)

At recent levels of activity (1500 Rad Worker 2s, resulting in roughly 1000 urine samples and 170 in vivo counts per month; investigation of roughly 40 internal dosimetry cases per year) the manpower requirement is:

Health Physicist (in vivo):	1813 hrs/yr
Rad Control Technician (in vivo):	1813 hrs/yr
Health Physics Technician (lab):	1813 hrs/yr
Chemist (lab):	1813 hrs/yr
Radiological Engineer (dosimetry):	1813 hrs/yr

In FY01-3Q, a number of Rad Worker 2s will have been reprofiled to Rad Worker 1, removing them from the urinalysis and in vivo programs. This reduction will allow a reduction of 907 hours of effort principally in the bioassay lab, with some savings in the in vivo facility. The reduction in hours will be accomplished through the

departure of a part-time chemist. (NOTE: All chemist hours are supplied by personnel from the Analytical Laboratory.)

In FY04-1Q, the completion of Waste Generator Services and NMD activities will reduce the Rad Worker 2 population sufficiently that another 906 hours of chemist time will be eliminated. The Manpower requirement at that time will be:

Health Physicist (in vivo): 1813 hrs/yr
Rad Control Technician (in vivo): 1813 hrs/yr
Health Physics Technician (lab): 1813 hrs/yr
Radiological Engineer (dosimetry): 1813 hrs/yr

In FY06-1Q, The completion of the Lab/Pilot Plant demolition marks the end of the remediation work with significant potential for internal uranium exposure. Bioassay and in vivo monitoring will be discontinued at that time, eliminating the Health Physicist, Health Physics Technician and Rad Control Technician positions. Internal dosimetry expertise will still be required, but the entire programmatic Rad Control organization will be consolidated at that time, as described in a separate section below.

R1-D-002

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
Internal Monit										
# of RW2s	1500	1200	1200	800	800	Note 1	Note 1	Note 1	Note 1	Note 1
Urine Bioassay FTEs	2	1.5	1.5	1	1	0	0	0	0	0
In Vivo FTEs	2	2	2	1	1	0	0	0	0	0
Internal Dosimetry Fixed FTEs	1	1	1	1	1	1	1	0	0	0
Material	96,5000	84,000	84,000	68,000	68,000	5,000	5,000	0	0	0
Subcont	29,000	27,000	27,000	24,000	24,000	0	0	0	0	0

Note 1: Number of RW2s stop being a driver for internal monitoring in FY06 because uranium monitoring stops.

1.4.3 Task #3 - Maintain Records of Personnel Radiation Exposures.

Dosimetry Records and HIS20 Database

The scope of work provided by Dosimetry Records is to maintain records of personnel radiation exposure, generates radiation exposure reports as required, and maintains the HIS20 database. In addition to personnel radiation exposure, the HIS20 database contains the site's automated radiological access control system and other features such as recording respirator issuance. This subtask also provides the S&H Department records coordinator. This includes the following scope:

- Enter employee information into HIS20 for radiological access control purposes.

- Generate radiation exposure estimates and final radiation exposure termination letters at the request of terminated workers.
- Generate annual radiation exposure summaries for radiation workers.
- Generate annual Radiation Exposure Monitoring system (REMs) report for DOE.
- Maintain workers' demographic information, TLD assignment information, and radiation dose in HIS20 database.
- Maintain the HIS20 database (add updates/patches from manufacturer).
- Enter personnel dose records in the ARIDs database (this is an ongoing effort; there are approximately 50,000 personnel dose records to enter).
- Monitor access control for approximately 1200 visitors per year.
- Obtain and maintain records of employees' previous radiation exposure histories (radiation exposure received at other sites prior to employment at FEMP).
- Issue temporary TLDs to workers who lose their TLDs and to new hires.
- Catalog and archive dosimetry and non-dosimetry radiological records.

The HIS20/Records budget provides for a service agreement with Canberra for the HIS20 database (\$50,000/year), and replacement control point equipment (\$10,000/yr).

(NOTE: The combined resources required to accomplish Subtasks 1 and 3 should be roughly proportional to the number of dosimeters issued. The decline in manpower levels in these subtasks is based on current judgement about how the population that is monitored for external radiation exposure will change. However, it is estimated that two positions are tied to in-house processing of TLDs, pretty much regardless of how many personnel are monitored.)

At recent levels of activity (personnel monitoring activity described above, radiation monitoring records in support of current radiological work, "cleaning up" historical urinalysis results database, etc.) the manpower requirement for this subtask is:

Information Records Representative:	2720 hrs/yr
Clerk:	3626 hrs/yr
Rad Control Technician:	1813 hrs/yr

In FY02-2010, the cleanup of historical urinalysis results will be complete, as will the development of an alternative to the HIS-20 database. This will decrease the amount of Clerk effort by 1813 hrs/yr, and **elimination of the RCT position.**

In FY06-1Q the entire programmatic Rad Control organization will be consolidated as described in a later section.

R1-F12-49

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
Maintain Rad Record #mon.ind	3250	2000	1200	800	800	400	400	100	0	0
Personnel Rec FTE	3	2 115	2 115	1	1	1	1	1	0.25	0

R1-D-002

R1-F12-49

Survey Records fld rad wrk FTE	1.5	1.5 1.0	1.5 1.0	1	1	1	1	0.5	0.25	0
Material	10,000	10,000	5,000	4,000	4,000	2,000	2,000	1,000	0	0
Subcont.	50,000	50,000	50,000	50,000	50,000	5,000	5,000	5,000	5,000	0

1.4.4 Task # 4 - Prepare Radiation Work Permits for Site Radiological Work.

Radiation Work Permit Group

The scope of work provided by the Radiation Work Permit program provides a mechanism for ensuring that radiological conditions for specific tasks have been appropriately considered and factored into preparation for the task. This group prepares Radiation Work Permits and reviews and evaluates Task Orders and Maintenance Work Requests in order to determine if radiological conditions are addressed adequately.

- Prepare approximately 400 Radiation Work Permits (RWPs) annually, utilizing task descriptions and radiological surveys that describe conditions in work areas.
- Update RWP information in access control segments of HIS20 database.
- Evaluate approximately 1600 Task Orders and Maintenance Work Requests annually in order to determine if work can be done under existing RWP or if new RWP is needed.

The budget for RWPs provides only for routine administrative expenses.

(NOTE: Manpower required to accomplish this subtask should be roughly proportional to the amount of radiological work that is underway, the number of RWPs that are prepared, and the number of Task Orders and Maintenance Work Orders that are executed.)

Radiation Work Permits (RWPs) are prepared by individuals classified as a Health Physics Technician, and a Rad Supervisor/Manager, although this person does not have any supervisory responsibilities. Supervision of this activity is provided by the Team Leader of Rad Compliance, who is classified in the baseline as a Radiological Engineer. At current activity levels (400 RWPs per year, 1600 Task Orders and Maintenance Work Orders per year) the manpower required for this subtask is:

Health Physics Technician:	1813 hrs/yr
Rad Supervisor/Manager:	1813 hrs/yr

In FY02-1Q, RWP work practices will be revised to decrease the effort required from the RWP group. Consequently, the Rad Supervisor/Manager position will no longer be required, leaving only:

Health Physics Technician:	1813 hrs/yr
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In FY06-1Q the entire programmatic Rad Control organization will be consolidated as described in a later section.

R1-D-002

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	217	239	98
Prepare RWP's fld rad wk FTE	2	1	1	1	1	1	0	0	0	0
Materials	0	0	0	0	0	0	0	0	0	0
Subcont		0	0	0	0	0	0	0	0	0

1.4.5 Task #5 - Specify, Maintain, Repair, and Calibrate Occupational Radiation Monitoring Instruments.

Radiological Control Instrument Laboratory

The scope of work provided by the instrument shop manpower and equipment budget is based upon repair and calibration of about 400 instruments per months. Most instruments are calibrated on a six month cycle. Repairs are performed as and when needed. In addition the instrument shop personnel send equipment off-site for calibration, especially all the M&TE equipment used by the radiological control organization. In addition, the acquisition, calibration, and maintenance of Industrial Hygiene instrumentation is included in this scope of work. This includes the following routine activities conducted by the Radiological Instrument Laboratory:

- Maintain and repair about 300 radiation monitoring and detection instruments, and air sampling instruments used by the Radiological Control Department per month.
- Calibration of 200 instruments and air samplers per month. Many calibrations are performed in place in the field.
- Acquire and maintain inventory of spare parts to effect timely repairs.
- Purchase additional instruments to replace lost or damaged instruments.
- Evaluate new instruments to support ongoing or proposed operations.
- Provide training and other assistance to radiological Technicians in the areas of instrument operation and use.
- Service and maintain all alpha/beta low background counters.
- Provide instrumentation-related assistance to other groups such as industrial hygiene and the laboratory on an as needed basis.
- Maintain records of instrument receipt, repair and calibration.
- Currently the instrument inventory includes 84 automated contamination monitors, about 700 portable instruments, 160 area air samplers, 300 personal air samplers and about 30 M&TE.
- Supply projects with P-10 gas to all field based gas flow proportional counting equipment.
- Create, review and update calibration and operation procedures for all radiological monitoring instruments. The reviews are performed on an annual or biannual cycle depending on the type of procedure.
- Input data into the instrument tracking system, and maintain the tracking system.

- Send instruments off-site for repairs and calibration, (some radiation monitoring instruments and all M&TE utilized by Rad Control Instrument Shop).
- Assist projects with specifications, and approve specifications for the procurement of new radiation detection and monitoring equipment.

The instrument and supply budget for instrumentation is used for off-site calibration and repair, which includes M&TE equipment and equipment that cannot be calibrated on-site (\$20,000/year); spare parts and supplies to maintain and repair equipment used on-site, this included, batteries, replacement parts, detectors, Mylar etc, as well as replacement of equipment that is damaged or to increase the inventory of a particular type of monitor (\$125,000); and calibration, repairs, supplies and parts, new/replacement equipment, and sample media for Industrial Hygiene monitoring instruments (\$85,000/year).

(NOTE: Manpower required for this task should be roughly proportional to the number of radiological instruments in use, which in turn should be roughly proportional to the amount of radiological work in progress. Fixed air samplers and automated contamination monitors depend primarily on the amount of area in which radiological work is performed. Personal air samplers depend mainly on the number of personnel involved in radiological work. Portable instruments are largely dependent on the size of the Radiological Control staff on the projects.)

This subtask is performed by Health Physicists, Radiological Engineers, Health Physics Technicians, and Rad Control Technicians. Supervision is provided by the Team Leader of the Air Monitoring and Instrumentation Lab, who is classified in the baseline as a Health Physicist. At current levels of activity (maintenance, repair, and calibration of 84 automated contamination monitors, ~700 portable instruments, 160 area samplers, 300 personal air samplers, and about 30 pieces of M&TE; many of these items are dispersed around the site and serviced in place) manpower requirement for this subtask is:

Health Physicist:	3626 hrs/yr
Radiological Engineer:	1813 hrs/yr
Health Physics Technician:	5439 hrs/yr
Rad Control Technician:	906 hrs/yr

In FY02-1Q, the air sampling program at WPRAP will have matured to the point that servicing air monitoring devices will be more routine than at present. That will allow the elimination of the half-time Rad Control Technician, leaving manpower requirement at:

Health Physicist:	3626 hrs/yr
Radiological Engineer:	1813 hrs/yr
Health Physics Technician:	5439 hrs/yr

In FY04-1Q, the completion of Waste Generator Services/Nuclear Material Disposition activities will permit the elimination of the Radiological Engineer position.

Health Physicist: 3626 hrs/yr
 Health Physics Technician: 5439 hrs/yr

In FY06-1Q, the completion of WPRAP and Lab/Pilot Plant demolition will significantly reduce the requirements for this service, and will permit the elimination of a Health Physicist and Health Physics Technician position. The programmatic Rad Control organization will be consolidated as described in a later section.

R1-D-002

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
Inst Shop										
Air Samplers # of inst	460	460	460	400	400	200	100	100	50	0
FTE	1.5	1	1	1	1	1	0.25	0.25	0	0
Portable Inst. # of inst	700	700	700	600	600	300	150	150	50	0
FTE	2.5	2.5	2.5	2	2	1	0.25	0.25	0	0
Auto Monit. # of inst.	84	84	84	70	70	40	20	20	5	0
FTE	2.5	2.5	2.5	2	2	1	0.5	0.5	0	0
Material	165,000	165,000	165,000	140,000	140,000	70,000	35,000	35,000	10,000	0
Subcont	65,000	65,000	65,000	60,000	60,000	30,000	15,000	15,000	5,000	0

1.4.6 Task #6 - Analyze Job-Specific and Breathing Zone Radiological Air Samples, and Perform Routine Radon Monitoring for Occupational Radiation Protection Purposes.

Air Monitoring Laboratory

The scope of work provided by the air monitoring laboratory is to measure all air samples that are taken in support of the occupational radiation protection program, including job specific, general area and breathing zone samples. Routine reports are generated and distributed to personnel. The count room currently has six Tenelec low background counters which are calibrated monthly and performance checked daily. All air sampling data is maintained in a database which can be used by rad con personnel for tracking and reporting purposes.. The Air Monitoring lab also provides qualitative isotopic analysis of air filters and other sample media using alpha and gamma spectroscopy. This includes the following day to day operation of the air sample laboratory:

- Analyze over 3000 personal air samples, over 2000 job specific air samples and 1000 general area samples a month.
- Generate and distribute daily and weekly air sample reports.
- Maintain the air sample data bases.
- Analyze about 200 samples annually for isotopic information using the alpha and gamma spectroscopy systems.

The equipment and supply budget for the air monitoring lab, is used for purchasing consumables, such as filters, bar coded cards, glassine envelopes, liquid nitrogen, etc (\$13,000/year); in addition a service contract is in place for the alpha and gamma spectroscopy systems (\$6100/year).

Radon Monitoring

Routine occupational radon and thoron gas and working level measurements are performed in the workplace, and the data tabulated and reported to field personnel on a periodic basis.

- Exchange 140 alpha track radon and thoron monitors in the process area each quarter.
- Generate a quarterly radon/thoron monitoring report and update the database.
- Assist projects with their radon/thoron monitoring needs. This includes deployment and collection of working level monitors. Tabulation and reporting of data.
- Obtain off site QA/QC exposures of alpha track monitors for each quarterly processing cycle.
- Send fifty radon working level monitors off site annually for calibration and performance check them every six months.

The instrument and supply budget for acquiring alpha track radon and thoron detectors for routine occupational monitoring (\$12,000/year); provides for calibration of radon and working level monitors (\$20,000/year); and quarterly QA/QC testing of alpha track detectors (\$5000/year).

(NOTE: Manpower for the Air Monitoring Laboratory should be roughly proportional to the number of air samples analyzed. Manpower for Random Monitoring should be roughly proportional to the number of radon and thoron detectors exchanged, the number of radon monitors deployed, and the number of samples submitted for alpha and gamma spectroscopy.)

This activity is performed by Health Physicists and Health Physics Technicians. Supervision is provided by Team Leader classified in the baseline as a Health Physicist. At current levels of activity (analysis of over 3000 personal air samples, over 2000 job specific air samples, and 1000 general area air samples per month, isotopic analysis by alpha and gamma spectroscopy of 200 samples per year, quarterly exchange of 140 alpha track radon and thoron detectors, maintaining and operating fifty radon monitors), this subtask requires the following manpower.

Health Physicist: 3626 hrs/yr

Health Physics Technician: 5439 hrs/yr

In FY04-1Q, completion of Waste Generator Service/Nuclear Material Disposition activities will require somewhat less demand for these services, permitting the elimination of a Health Physicist and Health Physics Technician position.

In FY06-1Q, completion of WPRAP and Lab/Pilot Plant demolition will cause a decrease in the need for these services, permitting the elimination of another Health Physics Technician position, and the supervisory Health Physicist position. The remaining manpower will be consolidated into a single programmatic Rad Control organization as explained in a later section.

R1-D-002

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
Air Sample Cnt										
GA & Job Spec. # samp/mo	3000	3000	3000	2500	2500	800	800	800	400	0
FTE	2	2	2	1	1	0.5	0.25	0.25	0.25	0
Personal (PAS) # samp/mo	3000	3000	3000	2800	2800	700	600	600	600	0
FTE	2	2	2	1.5	1.5	1	0.5	0.5	0.5	0
Radon #tracktch	140	140	140	100	100	60	60	60	60	0
#instrum	50	50	50	50	50	20	20	20	20	
FTE	1	1	1	0.5	0.5	0.5	0.25	0.25	0.25	0
Material	25,000	25,000	25,000	20,000	20,000	8,000	8,000	8,000	4,000	0
Subcont	31,100	31,100	31,100	25,000	25,000	13,000	13,000	13,000	13,000	0

1.4.7 Task#7 - Maintain Sitewide Programmatic Radiation Protection Documentation.

The scope of work provided by the programmatic Radiation Control Documentation program is to prepare and maintain the site Radiological Protection Program Plan (PL-3062) and the site Radiological Control Manual (RM-0020); six functional area procedures in the RP functional area; and 23 section procedures. Nineteen of these documents are reviewed and revised on an annual basis (for those determined to be Technical - Operationally Significant), 9 on a biennial basis (for those which are non-Operationally Significant), and one on a triennial basis (classified administrative). Other documents required to maintain the site radiological control program include 49 technical basis documents in the Radiological Control Program.

(NOTE: Manpower required for this subtask is roughly proportional to the site's documentation expectations and the complexity of the site's documentation processes.)

This activity is performed by a Technical Program Representative and Radiological Engineers. Supervision is provided by a Team Leader classified as a Radiological Engineer in the baseline. At the current level of activity (maintenance of the Radiological Protection Program Plan, the site Radiological Control Manual, 6 functional area procedures, and 23 section procedures, most of which require annual review; maintenance of 49 technical basis documents) the manpower required for this effort is:

F-12-042

~~Technical Program Representative: 1813 hrs/yr~~
Radiological Engineer: 2720 hrs/yr

F-12-042

In FY04-1Q, the long-term effort to streamline and simplify Rad Control policies and practices will be complete, ~~permitting a reduction in the effort required for this task.~~

In FY06-01, the entire programmatic Rad Control organization will be consolidated as described in a later section.

R1-D-002

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	19430	1432	1389	1133	1470	1179	814	427	239	98
Maintain RP doc # docs	100	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	
FTE	2	1.5	1.5	1	1	0.5	0.25	0.25	0.25	0
Material	0	0	0	0	0	0	0	0	0	0
Subcont	0	0	0	0	0	0	0	0	0	0

Note 2: Manpower reduction in the subtask is based on simplification of procedure system rather than number of documents.

1.4.8 Task #8 - Ensure Sitewide Compliance with Programmatic Requirements.

The scope of work provided by the Radiological Control sitewide compliance program is to conduct required assessments of the radiological control program and field implementation. Assessments of the radiological control program are required by 10 CFR 835 on a triennial basis. The assessment program audits 1/3 of the 22 functional elements from 10 CFR 835 and the S/RID each year on a rotating basis. Field assessments are conducted to ensure project elements are conducting radiological work in accordance with the S/RID. Approximately 70 of these are conducted on an annual basis. Other assessments conducted include verification of corrective actions based on Noncompliance Tracking System (NTS) reports. The site averages 7 NTS reports per year with 6-8 corrective actions (average) per report. Budget provides for limited subcontracting of professional services assistance (\$10,000/yr).

(NOTE: Manpower required for this subtask is roughly proportional to the amount of radiological work in progress on the site. The amount of area where radiological work is occurring is probably a better driver than the number of radiological workers or the cost of the radiological work.)

At the current level of site activity (current radiological work, coupled with assessment of 7 or 8 functional elements from 10 CFR 835 per year; approximately 70 field assessments per year [this number depends on the extent of radiological work underway onsite]), manpower requirements for this subtask are:

Health Physicist: 1813 hrs/yr
Radiological Engineer: 1360 hrs/yr

In FY03-3Q, simplification of Rad Control practices will allow elimination of 906 hours of Radiological Engineer effort. This should occur conveniently with the elimination of enriched uranium from the site, so that a shared resource between Rad Control and Nuclear Safety could be eliminated.

In FY04-1Q, the completion of Waste Generator Services/Nuclear Material Disposition activities will permit the elimination of a Health Physicist position.

In FY06-1Q, the entire programmatic Rad Control organization will be consolidated as described in a later section.

R1-D-002		01	02	03	04	05	06	07	08	09	10
	Site Population (FTE)	19430	1432	189	1133	1470	1179	814	427	239	98
	Ensure compliance field rad work FTE	1.25	1.25	1.25	0.75	0.75	0.5	0.25	0.25	0.25	0
	Material	0	0	0	0	0	0	0	0	0	0
	Subcont	10,000	10,000	10,000	10,000	10,000	5,000	5,000	0	0	0

1.4.9 Task #9 - Review Deficiencies, etc., To Determine PAAA Applicability.

The scope of work provided by Radiological Control to review PAAA deficiencies is an average of 2200 documents per year from the following sources: Non-Conformance Reports; Radiological Deficiency Reports; FEMP AEDO Logs; DOE Field Observations; Fluor Field Observations; Internal and External Audits; and, Subcontractor Non-Conformance Reports. These documents are screened to determine applicability for either a violation of the Quality Rule (10 CFR 830.120), or the Radiological Control Rule (10 CFR 835). This task also includes participation of Radiological Control personnel and the Radiological Control Manager in this step of the PAAA program, including participation on the PAAA Oversight Team.

(NOTE: This is largely a fixed effort. It depends somewhat on the amount of radiological work in progress, and on the site's approach to PAAA implementation, but little relief is apparent for this activity.)

At the current level of activity (screening 2200 documents per year, preparing about 6 NTS reports per year, tracking completion of corrective actions, etc.) the manpower required for this subtask is:

Radiological Engineer: 1360 hrs/yr
Program Manager: 181 hrs/yr

In FY06-1Q, the programmatic Rad Control organization will be consolidated into a single organization as described in a later section.

R1-D-002		01	02	03	04	05	06	07	08	09	10
	Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98

R1-D-006	PAAA Review Fixed									
	FTE	0.85	0.85	0.85	0.85	0.85	0.2	0.5	0.5	0.5
R1-D-022	Material	0	0	0	0	0	0	0	0	0
	Subcont	0	0	0	0	0	0	0	0	0

1.4.10 Task #10 - Provide Guidance and Assistance to Projects to Improve Safety & Health Execution.

The scope of work provided by Radiological Control to provide guidance and assistance to project support in the areas of radiological training, ALARA support, and interpretation of sitewide radiological requirements, as well as authoritative professional advice in all areas of occupational radiological control.

NOTE: Manpower required for this subtask is roughly proportional to the amount of radiological work in progress on the site.)

At the current level of site radiological work, the manpower required for this subtask is:

Radiological Engineer: 906 hrs/yr

In FY06-1Q, the programmatic Rad Control organization will be consolidated into a single organization as described in a later section.

R1-D-002		01	02	03	04	05	06	07	08	09	10
	Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
	Assist Projects fld rad wrk										
	FTE	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0	0
	Material	0	0	0	0	0	0	0	0	0	0
	Subcont	0	0	0	0	0	0	0	0	0	0

1.4.11 Task #11 - Provide Management and Administration For the Programmatic Radiological Control Organization.

The scope of work provided by the Management of the Programmatic Radiological Control organization is to provide planning and direction for Radiological Control tasks, serves as the primary interface with DOE-FEMP counterparts, and provides employee performance assessment and other employee management tasks for the organization. The equipment and supply budget for this subtask provides routine administrative supplies (\$21,575/yr) and instruments and equipment for emerging issues (\$20,000/yr). Other direct costs (ODCs) for professional development for all of the programmatic Radiological Control organization are also included in this subtask (\$10,000/year).

(NOTE: Manpower in this subtask should be roughly proportional to the number of personnel in the programmatic Radiological Control organization.)

This activity is performed by a Program Manager, and three supervisory personnel who are identified in the baseline as one Safety and Health Manager, one Radiological Engineer, and one Health Physicist. Administrative support is provided by an Information Records Representative who also works in the radiological records subtask. At current levels of activity and staffing, manpower required for this subtask is:

R1-D-006
R1-D-022

Program Manager:	1632 hrs/yr
Safety and Health Manager:	1813 hrs/yr
Radiological Engineer:	1813 hrs/yr
Health Physicist:	1813 hrs/yr
Information Records Rep.:	907 hrs/yr

In FY04-1Q, the programmatic Radiological Control staff will be reduced sufficiently that one supervisory position will be eliminated. In all likelihood, Radiological Compliance activities will come under the direct supervision of the Radiological Control Manager (Program Manager) at that time. Manpower for this subtask at that time will be:

Program Manager:	1813 hrs/yr
Safety and Health Manager:	1813 hrs/yr
Health Physicist:	1813 hrs/yr
Information Records Rep.:	907 hrs/yr

In FY06-3Q, the programmatic Radiological Control, Occupational Safety & Health, ES&H Integration, and Environmental Compliance organizations will be combined, leaving only one Program Manager from these four organizations combined. Consequently, the Program Manager position is will be eliminated from the Radiological Control baseline at that time, although a remaining senior manager will be designated as the site Radiological Control Manager. The programmatic Radiological Control organization will be consolidated as described in the following section.

R1-D-002		01	02	03	04	05	06	07	08	09	10
	Site Population (FTE)	19430	1432	1389	1133	1470	1179	814	427	239	98
R1-D-006	RP Mgmt & Adm # rad pers	35	30.5	30.5	22	22	15	9	6	3	0
R1-D-022	FTE	4.4	4.4	4.4	3.4	3.4	2.4	1.5	1.5	0.5	0
	Material	41,575	38,800	38,800	33,500	33,500	19,250	15,000	3,700	2,000	0
	ODC	10,000	8,000	8,000	6,000	6,000	4,000	3,000	2,000	0	0
	Subcont	0	0	0	0	0	0	0	0	0	0

1.4.12 Task #12 – Consolidation of All Subtasks, from FY06-1Q on.

In FY06, the remaining project work consists of:

- Lab/Pilot Plant D&D (final stages)
- OSDF Operations
- Soil Excavation
- Aquifer Project, including AWWT

Silo 1, 2, & 3 Operations and Waste Disposition
 LLW Compactible Trash Operations

The potential for personnel internal exposures to uranium is small for all of these, so it is expected that internal exposure monitoring and control will be adequately addressed by air sampling; there should be no need for in vivo monitoring or urine bioassay. While these specific operations will be discontinued, all the subtasks will have to continue. There will still be significant demand for air sample analysis, radon monitoring, and instrument maintenance and calibration. It will also be necessary to administer the personnel monitoring programs, provide internal dosimetry expertise, issue and maintain, RWPs, maintain program documentation, assess compliance of radiological operations, and provide PAAA reviews. The manpower to accomplish these tasks is sufficiently small so that a single manager will suffice. Consequently, the supervisory Health Physicist and supervisory Radiological Engineer will be eliminated. It is anticipated that resources will be shared between programmatic Rad Control and the remaining projects as necessary to accomplish the required tasks in both scopes.

In FY06-3Q, the oversight functions (subtasks 7 through 10) will be consolidated into a single ES&H Oversight organization, eliminating the Program Manager position. This organization, along with a "services" organization that performs subtasks 1 through 6 will be assigned to the Silos Project, eliminating the need for a programmatic ES&H organization. Therefore, manpower requirements for subtasks 1 through 10 in **FY11** are:

F-12-042

F-12-042

F-12-042

Program Manager:	906 hrs/yr (full-time for ½ year)
S&H Manager:	1813 hrs/yr
Radiological Engineer:	5439 hrs/yr
Health Physicist:	3626 hrs/yr
Information Records Rep.:	1813 hrs/yr
Clerk:	1813 hrs/yr
Rad Control Technician:	1813 hrs/yr
Health Physics Technician:	9065 hrs/yr

In FY07-1Q, completion of essentially all D&D allows for reductions in air sample analysis, instrument maintenance & calibration, and oversight activities. Manpower requirements at that time are:

S&H Manager:	1813 hrs/yr
Radiological Engineer:	3626 hrs/yr
Health Physicist:	1813 hrs/yr
Information Records Rep:	1813 hrs/yr
Clerk:	1813 hrs/yr
Rad Control Technician:	1813 hrs/yr
Health Physics Technician:	3626 hrs/yr

F-12-042

In FY08-1Q, completion of Silos operations represents a significant decrease in the site's radiological exposure potential. However, Silos D&D continues in FY08, as do

Soil Excavation, OSDF Operations, and AWWT operations, so some services and oversight will still be required. Manpower requirements at that time will be:

Safety & Health Manager: 1813 hrs/yr
 Radiological Engineer: 1813 hrs/yr
 Health Physicist: 1813 hrs/yr
 Information Records Rep: 1813 hrs/yr
~~Clerk: 1813 hrs/yr~~
 Rad Control Technician: 1813 hrs/yr
~~Health Physics Technician: 1813 hrs/yr~~

F-12-042

In FY09-1Q, Silos D&D is complete, and the only remaining work is OSDF and some minor Aquifer Project work. Very little programmatic Rad Control effort is required at this time, not enough to require its own manager, and much of the effort will be directed at ensuring records are properly organized for project closeout. Radiological expertise will be retained in order to make the appropriate judgements about that issue as well as to provide some services to OSDF. Manpower requirements through will be:

Radiological Engineer: 1813 hrs/yr
 Health Physicist: 1813 hrs/yr
Info Records Rep: 1813 hrs/yr

F-12-042

These resources will be phased out through FY09 and FY10 as the project is completed.

R1-D-002

F-12-042

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	19430	1432	1389	1133	1470	1179	814	427	239	98
Total FTE	35	20.5 27.5	20.5 27.5	22	22	15 14	9	6 11	3	0

SECTION 2

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1NC02 ES&H RAD CONTROL

DRIVERS		START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
201	D&D Summary	10/02/2000	03/30/2007		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
301	OSDF Summary Schedule	04/01/2004	12/23/2009																									
411	AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
502	WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
601	Soils Excavation Project Summary	10/01/2003	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
704	Silos AWR Summary	10/02/2000	10/23/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
710	Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
					22.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Project Management Program Mgr.					135.00	6.5	6.5	6.5	6.5	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4				
Environmental Safety & H Rad Engineer					133.00	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5				
Environmental Safety & H Health Physicists					4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Project Management Tech/Program Support Rep.					32.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Environmental Safety & H Safety & Health Mgr.					48.00	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1				
Information Management Information Records Rep.					7.00	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0				
Lab Chemist					4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Environmental Safety & H Rad Supervisor/Manager					36.00	3	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Administration Clerks					40.00	3.5	3.5	2.5	2.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Environmental Safety & H Rad Tech					200.00	9	9	9	9	9	9	9	9	9	9	9	8	8	8	8	8	8	5	5				
Environmental Safety & H Health Physics Tech.																												
Sheet Totals:					661.00	35.00	35.00	33.50	33.50	27.50	27.50	27.50	27.50	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	15.00	15.00	14.00	14.00			

Manpower Planning Sheet (CR2)

MPS # 1NC02 ES&H RAD CONTROL

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007	xxx	xxx																		
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																				
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
704 Silos AWR Summary	10/02/2000	10/23/2003																				
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008	xxx	xxx	xxx	xxx	xxx	xxx														
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				
Project Management	Program Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Environmental Safety & Health	Rad Engineer		2	2	2	2	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	
Environmental Safety & Health	Health Physicists		1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	
Project Management	Tech/Program Support Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Environmental Safety & Health	Safety & Health Mgr.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	
Information Management	Information Records Rep.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	
Lab	Chemist		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Environmental Safety & Health	Rad Supervisor/Manager		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Administration	Clerks		1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Environmental Safety & Health	Rad Tech		1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	
Environmental Safety & Health	Health Physics Tech.		2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sheet Totals:			9.00	9.00	9.00	9.00	5.00	5.00	5.00	5.00	3.00	3.00	3.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

SECTION 2

3.0 ESTIMATE

NCAAB

DOSIMETRY

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 10-Sep-01
PROJECT MGR: STU HINNEFELD
CAM: DANNY WHITAKER-SHEPPARD
PREPARED BY: TRACY BRAUN
FISCAL YEAR: FY01 - FY10

PBS: 12
WBS: 1.1.N.C.
CTRL ACCT: NCAA
CHARGE NO: NCAAB
COMMENT NO: 12-045, 12-049, 12-060

Resource:	CLERKS	CLERKS	EOC:	LABOR	
Res Dept:	Overtime:	Class:	SAL		
Yr Hours:	Oct 00- Sep 01 4,356.0	Oct 01- Sep 02 1,747.0	Oct 02- Sep 03 1,747.0	Oct 03- Sep 04 1,747.0	Oct 04- Sep 05 1,747.0
Cum Hours:	4,356.0	6,103.0	7,850.0	9,597.0	11,344.0
Yr Total Cost:	104,065	43,930	46,531	49,274	52,195
Cum Total Cost:	104,065	147,995	194,526	243,801	295,996

Oct 06-
Sep 07
1,747.0 Oct 07- Sep 08 0.0 | Oct 08- Sep 09 0.0 | Oct 09- Sep 10 0.0 | 14,838.0 | 14,838.0 | 0 | 0 | 412,215 | 412,215 |

Resource:	HLPTEC	HEALTH PHYSICS TECH	EOC:	LABOR	
Res Dept:	Overtime:	Class:	SAL		
Yr Hours:	Oct 00- Sep 01 13,068.0	Oct 01- Sep 02 15,723.0	Oct 02- Sep 03 15,723.0	Oct 03- Sep 04 13,976.0	Oct 04- Sep 05 13,976.0
Cum Hours:	13,068.0	28,791.0	44,514.0	58,490.0	72,466.0
Yr Total Cost:	446,926	566,000	599,507	564,315	597,768
Cum Total Cost:	446,926	1,012,926	1,612,433	2,176,748	2,774,516

Oct 05-
Sep 06
8,735.0 Oct 06- Sep 07 3,494.0 | Oct 07- Sep 08 0.0 | Oct 08- Sep 09 0.0 | 84,695.0 | 84,695.0 | 0 | 0 | 3,346,758 | 3,346,758 |

Resource:	HLPHY	HEALTH PHYSICIST	EOC:	LABOR	
Res Dept:	Overtime:	Class:	SAL		
Yr Hours:	Oct 00- Sep 01 8,712.0	Oct 01- Sep 02 10,482.0	Oct 02- Sep 03 10,482.0	Oct 03- Sep 04 8,735.0	Oct 04- Sep 05 8,735.0
Cum Hours:	8,712.0	19,194.0	29,676.0	38,411.0	47,146.0
Yr Total Cost:	384,199	486,562	515,366	454,793	481,754
Cum Total Cost:	384,199	870,761	1,386,127	1,840,920	2,322,674

Oct 05-
Sep 06
3,494.0 Oct 06- Sep 07 52,387.0 | Oct 07- Sep 08 54,134.0 | Oct 08- Sep 09 55,881.0 | 56,268.0 | 56,268.0 | 130,712 | 29,848 | 2,757,772 | 2,918,332 |

Resource:	INRREP	INFO RECORDS REP	EOC:	LABOR	
Res Dept:	Overtime:	Class:	SAL		
Yr Hours:	Oct 00- Sep 01 2,904.0	Oct 01- Sep 02 3,494.0	Oct 02- Sep 03 3,494.0	Oct 03- Sep 04 1,747.0	Oct 04- Sep 05 1,747.0
Cum Hours:	2,904.0	6,398.0	9,892.0	11,639.0	13,386.0
Yr Total Cost:	86,191	109,155	115,617	61,217	64,846
Cum Total Cost:	86,191	195,345	310,962	372,178	437,024

Oct 05-
Sep 06
15,133.0 Oct 06- Sep 07 16,880.0 | Oct 07- Sep 08 18,627.0 | Oct 08- Sep 09 20,374.0 | 20,374.0 | 20,374.0 | 79,162 | 0 | 660,572 | 748,543 |

S:\NEST_FORMS\Ncaab

INCLUDES ESCALATION COSTS

Resource:	LABCHM	CHEMIST	EOC:		LABOR	
Res Dept:		Overline:	Class:	SAL		
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05
Yr Hours:		1,010.5	873.5	873.5	0.0	0.0
Cum Hours:		1,010.5	1,884.0	2,757.5	2,757.5	2,757.5
Yr Total Cost:		39,167	35,637	37,747	0	0
Cum Total Cost:		39,167	74,804	112,551	112,551	112,551

Resource:	MAT300	MATERIAL OBJCLASS300	EOC:		MATERIAL	
Res Dept:		Overline:	Class:	MAT		
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05
Yr Units:		363,075.0	347,800.0	332,800.0	275,500.0	275,500.0
Cum Units:		363,075.0	710,875.0	1,043,675.0	1,319,175.0	1,594,675.0
Yr Total Cost:		363,075	357,191	351,014	298,714	307,078
Cum Total Cost:		363,075	720,266	1,071,279	1,369,993	1,677,071

Resource:	ODCTRLV	TRAVEL RESOURCE	EOC:		ODC	
Res Dept:		Overline:	Class:	ODC		
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05
Yr Units:		10,000.0	8,000.0	8,000.0	6,000.0	6,000.0
Cum Units:		10,000.0	18,000.0	26,000.0	32,000.0	38,000.0
Yr Total Cost:		10,000	8,216	8,438	6,506	6,688
Cum Total Cost:		10,000	18,216	26,654	33,159	39,847

Resource:	PROMGR	PROGRAM MGR	EOC:		LABOR	
Res Dept:		Overline:	Class:	SAL		
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05
Yr Hours:		1,452.0	1,747.0	1,747.0	1,747.0	1,747.0
Cum Hours:		1,452.0	3,199.0	4,946.0	6,693.0	8,440.0
Yr Total Cost:		136,503	172,871	183,105	193,901	205,395
Cum Total Cost:		136,503	309,373	492,478	686,379	891,774

Resource:	RADENG	RAD ENGINEER	EOC:		LABOR		EOC:		LABOR		EOC:		LABOR	
Res Dept:		Overtime:	Class:		SAL		SAL		SAL		SAL		SAL	
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-	Oct 09-	Oct 09-	
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 10	Sep 10	
Yr Hours:		9,438.0	10,482.0	10,482.0	6,988.0	6,988.0	5,241.0	3,494.0	1,747.0	1,747.0	1,747.0	387.0	387.0	
Cum Hours:		9,438.0	19,920.0	30,402.0	37,390.0	44,378.0	49,619.0	53,113.0	54,860.0	56,607.0	56,607.0	56,994.0	56,994.0	
Yr Total Cost:		445,474	520,764	551,594	389,410	412,495	330,529	238,880	125,891	139,900	139,900	31,946	31,946	
Cum Total Cost:		445,474	966,238	1,517,832	1,907,242	2,319,737	2,650,266	2,889,145	3,015,036	3,154,936	3,154,936	3,186,882	3,186,882	

Resource:	RADMGR	RAD SUPERVISOR/MGR	EOC:		LABOR		EOC:		LABOR		EOC:	
Res Dept:		Overtime:	Class:		SAL		SAL		SAL		SAL	
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-	
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	
Yr Hours:		1,452.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Cum Hours:		1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	
Yr Total Cost:		86,844	0	0	0	0	0	0	0	0	0	
Cum Total Cost:		86,844	86,844	86,844	86,844	86,844	86,844	86,844	86,844	86,844	86,844	

Resource:	RADTEC	RAD TECH	EOC:		LABOR		EOC:		LABOR		EOC:	
Res Dept:		Overtime:	Class:		SAL		SAL		SAL		SAL	
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-	
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	
Yr Hours:		4,199.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	0.0	0.0	
Cum Hours:		4,199.0	5,946.0	7,693.0	9,440.0	11,187.0	12,934.0	14,681.0	16,428.0	16,428.0	16,428.0	
Yr Total Cost:		143,102	62,668	66,378	70,292	74,459	79,551	86,240	90,897	0	0	
Cum Total Cost:		143,102	205,770	272,148	342,440	416,899	496,450	582,690	673,587	673,587	673,587	

Resource:	S&H MGR	SAFETY & HEALTH MGR	Class:		EOC:	LABOR		EOC:		LABOR		EOC:	
Res Dept:		Overtime:			SAL				SAL				
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-	Oct 10-	Oct 09-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 10	Sep 10
Yr Hours:		1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	0.0	0.0	0.0	0.0
Cum Hours:		1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,187.0	11,934.0	13,681.0	13,681.0	13,681.0	13,681.0	13,681.0
Yr Total Cost:		80,484	101,928	107,962	114,327	121,105	129,387	140,266	147,842	0	0	0	0
Cum Total Cost:		80,484	182,412	290,374	404,702	525,806	655,193	795,459	943,301	943,301	943,301	943,301	943,301

Resource:
Res Dept:

SUBS
Overtime:

	Oct 00-		Oct 01-		Oct 02-		Oct 03-		Oct 04-		Oct 05-		Oct 06-		Oct 07-		Oct 08-		Oct 09-		
	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 11	Sep 12	Sep 13	Sep 14	Sep 15	Sep 16	Sep 17	Sep 18	Sep 19	Sep 20	
Yr Units:	222,100.0	220,100.0	235,100.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0	206,000.0
Cum Units:	222,100.0	442,200.0	677,300.0	883,300.0	1,089,300.0	1,295,300.0	1,501,300.0	1,707,300.0	1,913,300.0	2,119,300.0	2,325,300.0	2,531,300.0	2,737,300.0	2,943,300.0	3,149,300.0	3,355,300.0	3,561,300.0	3,767,300.0	3,973,300.0	4,179,300.0	
Yr Total Cost:	222,100	226,043	247,967	223,358	229,612	235,866	242,120	248,374	254,628	260,882	267,136	273,390	279,644	285,898	292,152	298,406	304,660	310,914	317,168	323,422	
Cum Total Cost:	222,100	448,143	696,109	919,467	1,149,079	1,383,945	1,618,811	1,853,677	2,088,543	2,323,409	2,558,275	2,793,141	3,028,007	3,262,873	3,497,739	3,732,605	3,967,471	4,202,337	4,437,203	4,672,069	

Resource:
Res Dept:

TECH/PROG SUPT REP
Overtime:

	Oct 00-		Oct 01-		Oct 02-		Oct 03-		Oct 04-		Oct 05-		Oct 06-		Oct 07-		Oct 08-		Oct 09-	
	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 11	Sep 12	Sep 13	Sep 14	Sep 15	Sep 16	Sep 17	Sep 18	Sep 19	Sep 20
Yr Hours:	1,452.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:	75,446	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cum Total Cost:	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446	75,446

GRAND TOTALS:

	Oct 00-		Oct 01-		Oct 02-		Oct 03-		Oct 04-		Oct 05-		Oct 06-		Oct 07-		Oct 08-		Oct 09-	
	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 11	Sep 12	Sep 13	Sep 14	Sep 15	Sep 16	Sep 17	Sep 18	Sep 19	Sep 20
Yr Hours:	49,495.5	48,042.5	48,042.5	38,434.0	38,434.0	25,287.0	15,723.0	8,735.0	5,241.0	774.0										
Cum Hours:	49,495.5	97,538.0	145,580.5	184,014.5	222,448.5	247,735.5	263,458.5	272,193.5	277,434.5	278,208.5										
Yr Total Cost:	2,623,575	2,690,965	2,831,225	2,426,107	2,553,393	1,578,123	1,030,792	667,920	407,319	61,794										
Cum Total Cost:	2,623,575	5,314,539	8,145,765	10,571,872	13,125,265	14,703,388	15,734,180	16,402,100	16,809,419	16,871,213										

CAM

Supervised for George Santrell

CONTROL TEAM

Linda Weste

SECTION 2

4.0 RISK PLAN

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WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION (Work Package)

Page 1

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE D. J. Smith 648-4442	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAC	13. TASK DESCRIPTION (ONE LINE) MEDICAL		

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

Medical Services supports the safety effort of Fluor Fernald management by ensuring that each worker is able to perform his assigned tasks without significant risk of injury or harm to themselves, their co-workers, the site, or the environment. This is accomplished through the performance of health assessments, medical surveillance, fitness to perform duty evaluations, treatment and follow up of injuries and illnesses, substance abuse testing, and employee counseling and health promotion.

Medical assists Fluor Fernald management in assuring the placement of employees (Fluor Fernald, subcontractors, and site DOE personnel) in work areas or functions where they can perform without significant risk of injury or harm to themselves, their co-workers, the plant site and facilities, or the environment.

The Occupational Medical Program provides continued medical surveillance of workers, their job tasks, and their work environment by performing appropriate medical examinations and testing on employees whose jobs involve specific physical, chemical, or biological hazards, or when notified by Industrial Hygiene of worksite exposures in excess of OSHA/DOE permissible limits.

The Occupational Medical Program provides early detection, treatment, and rehabilitation of workers who become occupationally ill or injured, in order to minimize lost work time.

Project Manager <i>SV Hunschfeld</i> for George Sartell	Control Account Manager <i>SV Hunschfeld</i> for George Sartell	Control Team Manager <i>Linda Weste</i>
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WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
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12. TASK IDENTIFICATION (WORK PACKAGE) NCAAC	13. TASK DESCRIPTION (ONE LINE) MEDICAL		

14. ELEMENT TASK DESCRIPTION

Emergency medical services are provided following standards of emergency medical care and local applicable laws to the site population as well as to the community under mutual aid agreements.

Medical records are maintained on all active and terminated FEMP employees. There are approximately 3,000 active records and 10,000 inactive records on site. The remainder of the medical records are housed at the Records Center.

The substance abuse testing program for drugs and/or alcohol for pre-employment, pre-assignment, reasonable cause, post accident/incident, and random testing is done on workers determined to be in safety-sensitive positions. Random drug testing is performed for compliance with DOE 10 CFR 707 and 49 CFR 382.

Occupational Medical Program assists FF management in assuring the placement of employees in work areas or functions where they can perform without significant risk by performing Worker Capacity Evaluations and physical agility qualification testing for specific populations.

Administer staffing, budget, procurement, and contract activities to include contracts for personnel (doctors, nurses, clerk), service and maintenance agreements for equipment, vendor calibration of instrumentation, clinical testing not performed on site, delivery of oxygen, etc. Review procedures annually and revise as necessary. Develop new procedures in response to new requirements, testing procedures, etc. Ensure compliance with recognized standards through annual review of procedures and verification of personnel qualifications and training.

c. SCOPE OF WORK:

Provides occupational medical program for the site population (DOE, Fluor Fernald and Subcontractors). This program includes the following activities:

Baseline physical exams for new employees, periodic physical exams for the site population, and termination physical exams if required. Physical exams include:

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 3
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
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8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAC	13. TASK DESCRIPTION (ONE LINE) MEDICAL		

14. ELEMENT TASK DESCRIPTION

blood chemistries, complete blood count (CBC), clinical urinalysis, chest x-ray, pulmonary function, history with vital signs, audiometry, vision testing, cardiogram, other medical surveillance, exam by physician, and off-site evaluation by medical specialists as necessary.

Provide standard medical treatment and treatment following accidents/injuries for site population. Plant physicians will consult employees for non-occupational medical complaints and if possible refer them to their family physician for treatment. Occupational injuries and illnesses are documented in the employee's medical record.

Perform workplace exposure evaluations and surveillance testing as indicated. Administer heat stress monitoring upon request from projects. Administer flu vaccination program.

Assess, develop, and implement wellness/fitness programs intended to assist the FEMP community in making voluntary behavior changes which reduce their health risks and enhance their individual productivity. The program is comprised of seven interconnected series: community analysis, community diagnosis, program focus, target (group) analysis, program plan development, implementation, and program evaluation.

Perform ergonomic evaluations following occupational injuries.

Conduct job hazard analysis and office work station evaluations upon request.

Maintain medical records in compliance with all applicable laws and regulations.

Manage technical aspects of the site substance abuse program.

Provide medical guidance and supplies for First Responders at off site locations.

IPEX integration.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 4
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE D. J. Smith 648-4442	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAC	13. TASK DESCRIPTION (ONE LINE) MEDICAL		

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

None.

SECTION 3

1.0 NARRATIVE

1. PROJECT TITLE: PROGRAM SUPPORT AND OVERSIGHT	2. DATE: 09/10/01	3. PBS #: 12
4.WBS ELEMENT CODE: 1.1.N.C	5. WBS ELEMENT TITLE: Environmental, Safety, Health & Quality	
6. CAM NAME / PHONE: George Gartrell / 3996	7. CAM SIGNATURE:	
8. ORIGINAL / CHANGE SCOPE/ PER CP # :	9. CONTROL ACCOUNT: NCAAC	

PART 3: ENVIRONMENTAL, SAFETY, HEALTH & QUALITY

SECTION 3: ES&H MEDICAL (NCAAC)

1.0 NARRATIVE

1.1 OVERVIEW

Medical Services supports the safety effort of Fluor Fernald management by ensuring that each worker is able to perform his assigned tasks without significant risk of injury or harm to themselves, their co-workers, the site, or the environment. This is accomplished through the performance of health assessments, medical surveillance, fitness to perform duty evaluations, treatment and follow up of injuries and illnesses, substance abuse testing, and employee counseling and health promotion.

Medical assists Fluor Fernald management in assuring the placement of employees (Fluor Fernald, subcontractors, and site DOE personnel) in work areas or functions where they can perform without significant risk of injury or harm to themselves, their co-workers, the plant site and facilities, or the environment.

The Occupational Medical Program provides continued medical surveillance of workers, their job tasks, and their work environment by performing appropriate medical examinations and testing on employees whose jobs involve specific physical, chemical, or biological hazards, or when notified by Industrial Hygiene of worksite exposures in excess of OSHA/DOE permissible limits.

The Occupational Medical Program provides early detection, treatment, and rehabilitation of workers who become occupationally ill or injured, in order to minimize lost work time.

Emergency medical services are provided following standards of emergency medical care and local applicable laws to the site population as well as to the community under mutual aid agreements.

Medical records are maintained on all active and terminated FEMP employees. There are approximately 3,000 active records and 10,000 inactive records on site. The remainder of the medical records are housed at the Records Center.

The substance abuse testing program for drugs and/or alcohol for pre-employment, pre-assignment, reasonable cause, post accident/incident, and random testing is done on workers determined to be in safety-sensitive positions. Random drug testing is performed for compliance with DOE 10 CFR 707 and 49 CFR 382.

Occupational Medical Program assists FF management in assuring the placement of employees in work areas or functions where they can perform without significant risk by performing Worker Capacity Evaluations and physical agility qualification testing for specific populations.

Administer staffing, budget, procurement, and contract activities to include contracts for personnel (doctors, nurses, clerk), service and maintenance agreements for equipment, vendor calibration of instrumentation, clinical testing not performed on site, delivery of oxygen, etc. Review procedures annually and revise as necessary. Develop new procedures in response to new requirements, testing procedures, etc. Ensure compliance with recognized standards through annual review of procedures and verification of personnel qualifications and training

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1. Medical Services is an integral part of the company's risk management and loss control strategy as it relates to prevention of losses from occupational and non-occupational injuries and illnesses (work injuries/illnesses, lost work days, costs for medical care, etc.)
2. No new hazards requiring medical surveillance will be identified.
3. Existing equipment will not exceed useful life or need to be replaced due to inability to be repaired.
4. No new requirement to have all medical records available electronically will become effective.
5. ES&H Medical activities are performed as required by the following orders and standards:
 - OSHA 29 CFR 1910 - Hazardous Waste Operations and Emergency Response
 - DOE 440.1A - Worker Protection Management for DOE Federal and Contract Employees (3-27-98)
 - DOL 29 CFR 1630 - Americans with Disabilities Act
 - NFPA 1582 - Medical Requirements for Firefighters (8-14-92)
 - DOE 10 CFR 1046 - Physical Protection of Security Interests (8-31-93)
 - DOT 49 CFR 391 - Federal Motor Carrier Safety Regulations (12-1-98)
 - OSHA 29 CFR 134 - Respiratory Protection Standard (4-8-98)
 - OEPA - Infectious Waste Regulations
6. Medical Surveillance Program activities are performed as required by the following orders and standards:
 - OSHA 29 CFR 1926.1101 - Construction Asbestos Standard
 - OSHA 29 CFR 1926.62 - Construction Lead Standard (5-4-93)

- OSHA 29 CFR 1910.95 - Occupational Noise Exposure
 - OSHA 29 CFR 1910.134 - Respiratory Protection Standard (4-8-98)
 - OSHA 29 CFR 1910.1450 - Occupational Exposure to Hazardous Chemicals In Laboratories
 - OSHA 29 CFR 1910.1030 - Occupational Exposure to Bloodborne Pathogens (12-6-91)
 - DOE 10 CFR 850 - Chronic Beryllium Disease Prevention Program (1-7-00)
 - 42 U.S.C. 405 - Clinical Laboratory Improvement Amendment (9-1-92)
 - DOE 440.1A - Worker Protection Management for DOE Federal and Contract Employees
7. Occupational Medical activities are performed as required by the following orders:
- DOE 440.1A - Worker Protection Management for DOE Federal and Contract Employees
 - OSHA 1904
8. Medical Records activities are performed as required by the following orders:
- OSHA 29 CFR 1910.20 - Access to Exposure and Medical Records
 - DOE 10 CFR 1008.17- -The Privacy Act
 - DOE 200.1 - Records Disposition
 - DOE 231.1 - Environmental, Safety and Health Reporting
9. Substance Abuse Testing activities are performed as required by the following orders:
- DOE 10 FR 707 - Workplace Substance Abuse Programs at DOE Sites
 - DOT 49 CFR 40 - Procedures for Transportation Workplace Drug and Alcohol Testing Programs
 - Mandatory Guidelines for Federal Workplace Drug Testing Programs
 - HR-144 - Substance Abuse Program
10. Fitness Wellness activities are performed as required by the following orders:
- NFPA 1582 - Medical Requirements for Firefighters
 - Phoenix Fire Department Administrative Regulations (standard for NFPA 1582)
 - DOE 1046 - Physical Protection of Security Interests (8-31-93)
 - DOE 440.1A - Worker Protection Management for DOE Federal and Contractor Employees

1.2.2 Exclusions

None

~~1.2.3 Government Furnished Equipment/Services~~

~~Currently awaiting directive from DOE for the disposition of and preservation of the quality of medical x-rays.~~

R1-D-091

1.3 DRIVERS

1. D&D activities, WPRAP and other waste management services consume the major proportion of Medical Services resources and will do so into the First Quarter of '07 for medical surveillance, respirator use, other PPE use, fitness-for-duty issues, special functions (DOT CDL, Security Officer, etc.).
2. The logic for the closure plan is driven by consideration for:
 - Scope of work
 - Schedule of work
 - Total number of hazardous materials workers on site
 - Mix of prime contractor and subcontractor workers
 - Cost
 - Quality
 - Safety
 - Compliance
3. The Medical Services level of function is dependent upon the company's:
 - Scope
 - Schedule
 - Total number of hazardous materials workers
 - Mix of prime contractor workers and subcontractor workforce
 - All Medical personnel are cross-trained and perform multiple functions

1.4 SCOPE OF WORK

The scope of work provided by Medical in FY01 relates to each task and involves the following:

1.4.1 Task # 1 Medical Services

Medical Services supports the safety effort by ensuring that each worker is able to perform his assigned tasks without significant risk of injury or harm to themselves, their co-workers, the site, or the environment. This is accomplished through performance of the following activities:

- Health assessments
- Medical surveillance
- Fitness to perform duty evaluations
- Treatment and follow up of injuries and illnesses
- Substance abuse testing
- Ergonomic evaluations
- Emergency medical services
- Employee counseling and health promotion

1.4.2 Task #2 Health Assessments

Medical in FY01 assists Fluor Fernald management in assuring the placement of employees (Fluor Fernald, subcontractors, and site DOE personnel) in work areas or functions where they can perform without significant risk of injury or harm to themselves, their co-workers, the plant site and facilities, or the environment.

The number of occupational injuries and illnesses is minimized by the careful evaluation of the worker's ability to perform assigned tasks safely, and by the placement of restrictions against performing certain activities or the use of PPE when medical conditions or medications put the worker at risk.

This includes the following scope:

1. Comprehensive health examination for initial and continuing assessment of the employee:
2. Examinations include: blood chemistries, complete blood count, clinical urinalysis, hemocult, chest x-ray, pulmonary function testing, audiometry, electrocardiogram, vision testing, medical history and vital signs, exam by physician, additional medical testing as necessary, qualification review and documentation and referrals for further testing or second opinions as needed; Perform 2400 health examinations FY 01. (2400 medical exams previous year).
3. Review 90 medical records prior to a job transfer or initial assignment FY 01 (91 records were reviewed prior to job assignment in previous FY).
4. Evaluate examinations for job assignments for which standards specify specific medical qualifications to be met (e.g., respirator or SCBA use).
5. Perform return to work health evaluations of employees who have missed 5 or more days of work, have been hospitalized, have had surgery, or have been injured. Six hundred return-to-work visits for FY 01 (600 return-to-work visits in previous year).
6. Perform health status reviews for all terminating employees.

1.4.3 Task #3 Medical Surveillance Program

Occupational Medical Program provides continued medical surveillance of workers, their job tasks, and their work environment by performing appropriate medical examinations and testing on employees whose jobs involve specific physical, chemical, or biological hazards, or when notified by Industrial Hygiene of worksite exposures in excess of OSHA/DOE permissible limits. This includes the following scope:

Surveillance activities include:

- Appropriate medical examinations
- Completion of medical/occupational history questionnaires
- Diagnostic testing
- Physicians written opinion
- Immunizations (hepatitis, tetanus)

- Ergonomic evaluations
- Indoor air quality evaluations
- Evaluation of Health & Safety plans

1.4.4 Task #4 Treatment of Injuries/Illnesses

The Occupational Medical Program provides early detection, treatment, and rehabilitation of workers who become occupationally ill or injured, in order to minimize lost work time and associated costs.

This includes the following scope:

1. Medical coordinates with other safety and health professionals (IH, HP, Safety) to identify work-related or work site hazards (physical, chemical, biological) and their possible risk to employees.
2. Treat occupational injuries and illnesses are treated promptly, using standard medical treatment with emphasis on rehabilitation and return to work at the earliest time compatible with employee health and job safety.
3. Evaluate employees for job task accommodations or restrictions may be part of the rehabilitation process.
4. Safety groups and first line management are notified of unhealthy work situations detected.
5. Consult with employees for non-occupational medical complaints and refer them to their family physicians for treatment. A determination is made as to whether the complaint affects the employee's fitness to perform his assigned duties.
6. Personnel evaluation, treatment, and documentation of illness/injury
7. Interaction with IH, HP, Safety, etc., as appropriate for investigation
8. Perform medical evaluation to determine if a worker can perform his assigned task with current condition, medications, or restrictions. Last year Medical had the following illness/injury visits in calendar year 2000:

• Work related visits	670
• Non-occupational injury visits	200
• Non-occupations illness visits	1200
• Restriction reviews	144
9. Follow up re-evaluations, documentation, continued medical care as needed (wound cleansing, bandaging, etc.).
10. Maintain supplies/sundries for wound management, splints, braces, medications, etc.
11. Refer employees to specialists, as necessary, for further evaluation or for second opinions (approx. 20/))
12. Maintain service contract for maintenance of the OHM (Occupational Health Maintenance) System,
13. Ohio State Pharmacy Board License maintenance, and DEA license (Controlled Substances Regulation).

1.4.5 Task #5 Emergency Medical Service

Emergency medical services are provided following standards of emergency medical care and local applicable laws to the site population, as well as to the community, under mutual aid agreements.

Training/Certification Requirements:

- Obtain and maintain Emergency Medical Technician (EMT) certifications and/or Advanced Cardiac Life Support (ACLS) certification through re-certification courses and testing and continuing education classes.
- Provide medical guidance and medical supplies for the offsite First Responders. (This is not a required program. Off-site buildings are under the jurisdiction of the EMS service for that particular area.)

1.4.6 Task #6 Medical Records

Maintain medical records on all active and terminated FEMP employees. There are approximately 3,000 active records and 10,000 inactive records on site. The remainder of the medical records are housed at the Records Center. Medical Records activities include the following:

1. Filing of hard copy medical records
2. Medical data entry into the electronic medical database
3. Copying records upon request from employees, physicians, attorneys, etc.
4. Entry of records into the ARIDS system
5. Archiving of inactive records

1.4.7 Task #6 Substance Abuse Testing Program

1. Maintain and perform the substance abuse testing, education, professional guidance, and counseling program. The substance abuse testing program consists of testing for drugs and/or alcohol for pre-employment, pre-assignment, reasonable cause, and post accident/incident. Additionally, random testing is done on workers determined to be in safety-sensitive positions.
2. Perform random drug testing at a rate of 50% of the population determined to be in Testing Designated Positions under DOE 10 CFR 707. The Federal Motor Carrier Program requires random testing of that population at a rate of 50% for drugs and 10% for alcohol. Verification of all drug tests by Medical Review Officer is required.

1.4.8 Task #7 Fitness/Wellness

The occupational medical program assists FF management in assuring the placement of employees in work areas or functions where they can perform without significant risk by performing Worker Capacity Evaluations and physical agility qualification testing for specific populations.

1. Perform worker Capacity Evaluations are performed on prospective new hires and on employees transferred to a job that requires certain physical demands. A medical evaluation and an EKG stress test are performed to determine if the candidate or employee is physically capable of attempting the physical agility qualification for Emergency Response Team (ERT) member duties. If the individual qualifies medically for the program, the agility test and Worker Capacity Evaluation for confined space work is performed. There is also a physical fitness training program and medical certification requirements for security officers.
2. Monitor care of ill and injured employees to maximize their recovery and safe return to work in order to minimize lost time and its associated costs. The fitness program supports this by designing an individualized rehabilitation program based upon the parameters set forth by Medical Services, the employee's physician, and/or the employee's physical therapist. The injured employee can then complete rehabilitation at work under the supervision of the fitness/wellness coordinator.
3. Monitor active wellness programs include smoking cessation, Heart at Work activities, promotion of monthly health themes, and health risk prevention. In addition, support groups for diabetes, cholesterol management, hypertension, etc., are counseled by the fitness/wellness coordinator.
4. The Fitness/Wellness program assists the FEMP community in making voluntary behavior changes which reduce their health risks and enhance their individual productivity. A comprehensive fitness center is available to employees with a supervised exercise program designed and monitored by the fitness/wellness coordinator.
5. Over-the-counter medications are dispensed in single dose units upon request.
6. Flu vaccinations are administered annually to all FEMP employees wishing to receive the flu shot.
7. Fingerstick blood sugar testing is performed on diabetic employees to help them monitor their health status.
8. Allergy injections are given to employees going through desensitization to allergens to eliminate their need to leave site frequently to have injections at their allergist.
9. A mobile breast screening program is offered to all FF employees and spouses, as well as retirees and their spouses. Medical staff schedules the mobile unit, sends letters, and schedules appointments.
10. Blood drives are held on site and at an off-site location twice a year. Arrangements for the mobile unit from the blood bank, and appointments are scheduled.
11. A Fitness Fair is organized annually.

1.4.9 Task #7 Administrative Activities

1. Review procedures annually and revise as necessary. Develop new procedures in response to new requirements, testing procedures, etc.
2. Ensure compliance with recognized standards through annual review of procedures and verification of personnel qualifications and training
3. Administer staffing, budget, procurement, and contract activities. Contracts are required for personnel (doctors, nurses, clerk), service and maintenance agreements for equipment, vendor calibration of instrumentation, clinical testing not performed on site, delivery of oxygen, etc.
4. Preparation and response for inspections, audits, assessments, etc.
 - Federal – CLIA , FDA, – every 2 years; DOE HQ
 - DOE site, Quality Assurance
 - Self assessments, safety walkthroughs, chart reviews
5. POM activities - Monthly variance reports, monthly review with DOE counterpart, labor corrections, budget exercises
6. Attend meetings with Senior Manager of Safety and First Line Managers meetings weekly
7. Staff/Safety Workgroup meetings, briefings, etc. weekly
8. Review of Health & Safety plans, evaluation of new work scope to determine drug testing and health assessment requirements, participation in project kickoff meetings
9. Response to inquiries from Access Administration and Technical Representatives regarding medical and substance abuse testing requirements daily
10. Administration of the Substance Abuse Testing Program by managing the HEIDI program management database, ensuring that random programs meet testing requirements, monitoring the competency of collectors, verifying the accuracy of test reports, interacting with HR/IR/Tech Rep's/Security when positive results are received
11. Inventory, ordering, receiving, logging, rotating, properly storing supplies, and destroying expired supplies
12. Determine number and types of physicals due monthly and assign staff accordingly
13. Provide testimony for grievances, depositions, hearings, etc., 2 to 4 times per year
14. Supervise Medical personnel – approve timesheets weekly, perform PPA's annually, daily interactions
15. Act as liaison between Emergency Services and the Medical Director. Review standing orders for Emergency Medical Technicians and training requirements annually

1.4.10 Summary Manpower Evaluation

Quantification of manpower change over time is not by individual tasks since most of the medical personnel are cross-trained and perform multiple functions.

The plan for performing the Medical scope is to continue the above services until services are modified as follows:

1. To implement the "going out of business plan" the Medical Service compliant with contractual requirements requires reduction of 2 FTEs starting 2002 from 14 to 12 FTEs:
 - 1 Medical Technician
 - 1 Information Records Rep
2. Reduction of 1 physician 1st QTR 05 (11 positions remaining)
3. Reduction of 2 FTEs in Q3/FY05 (9 positions remaining):
 - 1 Medical Technician
 - 1 Med. Support
4. Reductions 1 FTE (8 positions remaining)
 - 1 Med. Support
5. Leaving 4 FTEs thereafter through Q1/FY10:
 - 1 Medical Technician
 - 1 Physician (SOMD)
 - 1 Medical Support
 - 1 Secretary
6. Basic assumptions in Q3/06:
 - Medical records functions will be managed by the site records management function
 - Administrative support will be provided by site administration (sharing of secretaries and clerks)

The quantification for Medical is based indirectly on the Fluor Fernald, Inc. project and subcontractor manpower. MANPOWER NEEDS FOR MEDICAL CANNOT BE TIED TO INDIVIDUAL TASKS, BUT ARCH THE TASKS AND ARE REFLECTIVE OF NEEDS. The resource requirements for this and the correlation with site manpower is shown in the following table:

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE includes subs) REQUIRING physicals	1670	1630	1660	1450	1260	1160	1060	840	730	500 (best est.)
Occ. Med. Staff	14	12 10	12 10	12 10	9 7	8 6	4 2	4 2	4 2	4 2

R1-D-002

R1-F12-046

SECTION 3

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1NC03 ES&H MEDICAL

DRIVERS		START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201	D&D Summary	10/02/2000	03/30/2007		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
301	OSDF Summary Schedule	04/01/2004	12/23/2009																									
411	AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
502	WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
601	Soils Excavation Project Summary	10/01/2003	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
704	Silos AWR Summary	10/02/2000	10/23/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
710	Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
Environmental Safety & H Safety & Health Mgr.				37.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Medical Physicians				75.00	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	1				
Medical Medical Tech.				44.00	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	0				
Medical Medical Support				115.00	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	3	2	2	2				
Information Management Information Records Rep.				4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Administration Clerks				37.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Administration Secretaries				22.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0				
Sheet Totals:				334.00	15.00	15.00	15.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	11.00	11.00	9.00	8.00	8.00	5.00	5.00	5.00				

MPS # 1NC03 ES&H MEDICAL

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007	xxx	xxx																		
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																				
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
704 Silos AWR Summary	10/02/2000	10/23/2003																				
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008	xxx	xxx	xxx	xxx	xxx	xxx														
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				
Environmental Safety & Health	Safety & Health Mgr.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	
Medical	Physicians		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	
Medical	Medical Tech.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Medical	Medical Support		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	
Information Management	Information Records Rep.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Administration	Clerks		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	
Administration	Secretaries		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sheet Totals:			5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.00	0.00	0.00	0.00	

SECTION 3

3.0 ESTIMATE

NCAAC
MEDICAL

Fluor Fernald, Inc.ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 10-Sep-01

PROJECT MGR: DEBBY SMITH

CAM: DANNY WHITAKER-SHEPPARD

PREPARED BY: TRACY BRAUN

FISCAL YEAR: FY01 - FY10

PBS: 12

WBS: 1.1 N.C.

CTRL ACCT: NCAAC

CHARGE NO: NCAAC

COMMENT NO: 12-046, 12-060

Resource:	CLERKS	CLERKS	CLERKS	Class:	EOC:	LABOR
Res Dept:	Overline:	Overline:	Overline:		SAL	

Yr Hours:	Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10
Cum Hours:	1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	387.0
Yr Total Cost:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,187.0	11,934.0	13,681.0	15,428.0	15,815.0
Cum Total Cost:	34,688	43,930	46,531	49,274	52,195	55,765	60,454	63,719	70,810	16,169
	34,688	78,619	125,150	174,424	226,619	282,385	342,838	406,557	477,367	493,536

Resource:	INRREP	INFO RECORDS REP	Class:	EOC:	LABOR
Res Dept:	Overline:	Overline:		SAL	

Yr Hours:	Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10
Cum Hours:	1,452.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yr Total Cost:	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0	1,452.0
Cum Total Cost:	43,095	0	0	0	0	0	0	0	0	0
	43,095	43,095	43,095	43,095	43,095	43,095	43,095	43,095	43,095	43,095

Resource:	MAT300	MATERIAL OBJCLASS300	Class:	EOC:	MATERIAL
Res Dept:	Overline:	Overline:		MAT	

Yr Units:	Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10
Cum Units:	200,000.0	200,000.0	136,000.0	120,000.0	106,000.0	96,000.0	88,000.0	70,000.0	60,000.0	40,000.0
Yr Total Cost:	200,000.0	400,000.0	536,000.0	656,000.0	762,000.0	858,000.0	946,000.0	1,016,000.0	1,076,000.0	1,116,000.0
Cum Total Cost:	200,000	205,400	143,443	130,111	118,150	110,107	103,858	85,010	74,979	51,436
	200,000	405,400	548,843	678,955	797,104	907,211	1,011,069	1,096,079	1,171,058	1,222,494

Resource:	MEDPHY	PHYSICIAN	Class:	EOC:	LABOR
Res Dept:	Overline:	Overline:		SAL	

Yr Hours:	Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10
Cum Hours:	4,356.0	5,241.0	5,241.0	5,241.0	3,494.0	2,576.0	1,747.0	1,747.0	1,747.0	387.0
Yr Total Cost:	4,356.0	9,597.0	14,838.0	20,079.0	23,573.0	26,149.0	27,896.0	29,643.0	31,390.0	31,777.0
Cum Total Cost:	209,044	264,740	280,413	296,946	209,699	185,177	121,439	127,998	142,242	32,481
	209,044	473,785	754,198	1,051,144	1,260,843	1,426,020	1,547,459	1,675,457	1,817,699	1,850,179

INCLUDES ESCALATION COSTS

S:\EST_FORMS\Ncaac

Resource:	MEDTEC	MEDICAL TECH	Class:		LABOR				EOC:		
Res Dept:		Overtime:							SAL		
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Yr Hours:		4,356.0	3,494.0	3,494.0	3,494.0	2,569.0	829.0	0.0	0.0	0.0	0.0
Cum Hours:		4,356.0	7,850.0	11,344.0	14,838.0	17,407.0	18,236.0	18,236.0	18,236.0	18,236.0	18,236.0
Yr Total Cost:		104,500	88,228	93,452	98,961	77,076	26,573	0	0	0	0
Cum Total Cost:		104,500	192,729	286,180	385,142	462,217	488,790	488,790	488,790	488,790	488,790

Resource:	S&H MGR	SAFETY & HEALTH MGR		Class:		EOC:		LABOR			
Res Dept:		Overtime:				SAL					
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
rr Hours:		1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	387.0
Cum Hours:		1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,187.0	11,934.0	13,681.0	15,428.0	15,815.0
rr Total Cost:		80,484	101,928	107,962	114,327	121,105	129,387	140,266	147,842	164,294	37,516
Cum Total Cost:		80,484	182,412	290,374	404,702	525,806	655,193	795,459	943,301	1,107,595	1,145,111

Resource: SECRET
Res Dept:SECRETARIES
Overtime:Class: EOC:
SAL LABOR

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Cum Hours:	1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	829.0	0.0	0.0	0.0	0.0
Yr Total Cost:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	9,269.0	9,269.0	9,269.0	9,269.0	9,269.0
Cum Total Cost:	32,423	41,062	43,493	46,057	48,787	24,734	0	0	0	0
	32,423	73,485	116,977	163,034	211,821	236,555	236,555	236,555	236,555	236,555

Resource: SERV SUB
Res Dept:SUBS
Overtime:Class: EOC:
SUB SUBCONTRACTORS

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Units:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Cum Units:	146,495.0	146,135.0	149,245.0	144,735.0	120,095.0	109,746.0	107,760.0	96,445.0	66,700.0	55,587.0
Yr Total Cost:	146,495.0	292,630.0	441,875.0	586,610.0	706,705.0	816,451.0	924,211.0	1,020,656.0	1,087,356.0	1,142,943.0
Cum Total Cost:	146,495	150,081	157,413	156,931	133,860	125,873	127,179	117,126	83,352	71,479
	146,495	296,576	453,989	610,919	744,780	870,652	997,831	1,114,957	1,196,309	1,269,788

GRAND TOTALS:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Cum Hours:	21,780.0	20,964.0	20,964.0	20,964.0	16,890.0	11,222.0	8,735.0	8,735.0	8,735.0	1,935.0
Yr Total Cost:	21,780.0	42,744.0	63,708.0	84,672.0	101,562.0	112,784.0	121,519.0	130,254.0	136,989.0	140,924.0
Cum Total Cost:	1,139,587	1,188,316	1,182,295	1,219,758	1,037,433	828,881	759,016	750,144	754,239	258,990
	1,139,587	2,327,903	3,510,197	4,729,956	5,767,388	6,596,269	7,355,285	8,105,429	8,859,669	9,118,659

CAM *Si Harnung* for *George Santell* CONTROL TEAM *Linda Lubete*

SECTION 3

4.0 RISK PLAN

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**MOVED TO
NON-DEFENSE**

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION (Work Package)

Page 1

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH	
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE PAT KRAPS 648-4217	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAE	13. TASK DESCRIPTION (ONE LINE) EMERGENCY SERVICES	

a. ELEMENTS OF COST:

Labor
Subcontractors
Materials
ODCs

b. TECHNICAL CONTENT:

Emergency Services provides management and administrative support for the Fire & Safety Program, Emergency Preparedness Program, Joint Response Program, Emergency Response Team Training for participating site personnel, meteorological Program and the site Communication Center. Emergency Services provides the personnel and services necessary to meet the criteria of the Standards/Requirements Identification Document for Emergency Preparedness and Management and Fire Protection.

Emergency Services consists of Emergency Services Administration, Emergency Preparedness and Management, Fire and Safety, and Communications Center. Emergency Services provides support to the site for all facets of emergency response activities.

c. SCOPE OF WORK:

Emergency Services consists of many general activities including Administration, Fire & Safety, Emergency Preparedness, Job and Task Analysis, Joint Response, the Meteorological Program, Emergency Response Team (ERT) Costs and the site Communication Center.

Project Manager <i>S. J. Humphreys</i> for George Santrell	Control Account Manager <i>S. J. Humphreys</i> for George Santrell	Control Team Manager <i>Linda Weste</i>
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WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE PAT KRAPS 648-4217	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAE	13. TASK DESCRIPTION (ONE LINE) EMERGENCY SERVICES		
14. ELEMENT TASK DESCRIPTION <p>Administration</p> <p>Provides management and administrative support for the following activities:</p> <ul style="list-style-type: none"> -Emergency Services Self-Assessment activities related to ensuring that all aspects of program componants comply with DOE Orders and state, federal, or local rules and/or regulations. -SARA Reporting activities related to routine required regulatory reports, management to ensure the quality of data and documentation, non-compliance reports, and preparation of reports to meet required time frames. -Complete the SARA 312 and SARA 313 Reports for the FEMP and review chemical purchases for SARA 311 notification requirements. Provide oversight for SARA supplier notification requirements. Perform a physical chemical inventory of the FEMP for the development of the SARA 312 report and develop emissions estimates for the development of the SARA 313 report. -Completion of SARA 312 Report. Duration - January 1 to July 1. -Completion of SARA 312 Inventory. Duration - December 1 to December 31. -Completion of SARA 311 Monthly Review. On-going activity. -Completion of SARA 313 Report. Duration - April 1 to July 1. -Evaluate, document and recommend to the Assistant Emergency Duty Officer the regulatory reporting requirements for spills and releases to the environment resulting from FEMP activities and provide other guidance as appropriate to assure compliance with environmental requirements. <p>Fire and Safety</p> <p>Specific activities include:</p> <ul style="list-style-type: none"> - Facility Hazard Inspections - Fire Protection Engineering Program - Fire Hazard Analysis Program - Engineering Design and Document Review - Safety and Fire Protection Policy/Program Documentation - Training and Professional Development - Fire Protection System Testing - Emergency Response Preplanning - Alarm and Suppression System Testing and Maintenance - Admininstration of the Emergency Response Program including full-time staffing 			

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 3
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE PAT KRAPS 648-4217	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAE	13. TASK DESCRIPTION (ONE LINE) EMERGENCY SERVICES		

14. ELEMENT TASK DESCRIPTION

of the Emergency Response Team.

Emergency Preparedness

Emergency Preparedness chairs the Cooperative Planning and Training Committee (CP&T), providing an opportunity for open discussion between Fluor Fernald, DOE-FN, state and county Emergency Management Agencies, Township Trustees, state and local Police Departments, Fire Departments, Life Squads, Communications Centers, Hospitals, and the Red Cross. This committee meets once each quarter, unless voted otherwise, to focus on emergency management issues, planning and exercise management.

The Offsite Emergency Warning System is a series of 11 sirens on the 2-mile radius of the FEMP property. This system is designed to warn FEMP neighbors of an emergency which has offsite consequences (General Emergency) requiring the public to take protective actions. This system also has a Severe Weather Warning component. A siren monitor is sent to each siren location during the test on the first Wednesday of each month. All "special facilities" (churches, schools, day care centers, and nursing homes) within the 5-mile radius of the FEMP facility has a tone alert radio which sounds when the Offsite Emergency Warning System is activated. Each special facility is contacted following the test to report results.

The Emergency Management Organization training program instructs and qualifies all emergency management personnel and provides for initial training and annual retraining of both primary and alternate emergency management personnel. The training program is composed of classroom-type training and practical training, including drills and exercises. The training is conducted to emphasize team response coordination. Annual retraining includes training on weaknesses detected during drills and exercises as well as changes to plans and procedures. Lessons learned from actual events and emergencies are also studied.

Job and Task Analysis

- Maintain Job and Task Analysis documentation current with responsibilities and training requirements for EOC Staff and Emergency Duty Officer Positions.
- Revise and issue FEMP Emergency Readiness Assurance Plan:

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 4
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE PAT KRAPS 648-4217	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAE	13. TASK DESCRIPTION (ONE LINE) EMERGENCY SERVICES		

14. ELEMENT TASK DESCRIPTION

Document required by DOE Order 151.1 to outline Emergency Readiness Assurance program, activities, schedule and budget.

- Revise and Issue Existing Emergency Procedures/Documents/Plans.

Revise and issue existing emergency management and response implementing procedures. Procedures/documents/plans are required by DOE Order 151.1.

- Revise and Issue Hazard Assessment Document:

Document describing all hazards on FEMP site by facility including consequences of each hazard as required by DOE Order 151.1.

- Revise/Issue FEMP Transportation Plan:

Revise and issue the FEMP Transportation Emergency Plan in accordance with DOE Order 151.1., consistent with the FEMP transportation campaign.

- Emergency Preparedness, Drills & Exercises, consists of a coordinated program of drills and exercises as an integral part of the FEMP Emergency Management Program. Emergency drills and exercises are conducted to develop, maintain, and test the responsibilities of personnel, the adequacy of facilities and equipment, the accuracy and adequacy of the procedures and the effectiveness of training. Drills are of sufficient scope and frequency to ensure adequate response capability in all applicable areas. Drills emphasize emergency response activities such as notification, emergency communication, fire, medical emergencies, hazardous material detection and monitoring, accountability, evacuation, emergency categorization, and health physics.
- Fluor Fernald, representing the FEMP facility, participates in both Butler and Hamilton County's Local Emergency Planning Committee (LEPC). This involvement includes attending quarterly meetings, participating in subcommittee activities, and periodically supporting LEPC sponsored exercises.
- Maintain EOC, Mobile EOC, Offsite Emergency Warning System and Sitewide Alarm System. The Emergency Operations Center (EOC) and the Mobile EOC (backup facility) facilities are inventoried and each piece of equipment operationally checked each month. Funding for any repairs or replacements is included. The Offsite Emergency Warning System (EWS) is maintained by a maintenance subcontractor performing preventative maintenance as well as emergency repairs. The Emergency Message System is tested daily with the morning safety announcement. Any repairs or adjustments necessary are reported by facility personnel and executed site coverage used during building or area evacuations.

Meteorological Program

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 5
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE PAT KRAPS 648-4217	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAE	13. TASK DESCRIPTION (ONE LINE) EMERGENCY SERVICES		

14. ELEMENT TASK DESCRIPTION

Meteorological Monitoring is conducted in order to meet compliance criteria established within DOE orders, Emergency Operations Center, and modeling activities onsite. This activity includes maintenance and operation of the meteorological tower onsite to meet all established criteria, including 10m and 60m wind data, joint frequency distribution, precipitation, pressure and other associated weather observations. Data is necessary in the event of a release so that an accurate dose assessment may be calculated. Data is also used in the projects for sampling activities and other activities onsite requiring any types of weather work that may impact the work task (e.g. construction field activities). This activity is also directly related to the monitoring activities of the K-65 silos in regards to radon.

Emergency Response Costs

Emergency Response Training is provided for all site ERT members (salary and wage personnel). Additionally, each ERT member is specifically compensated quarterly for active membership training and participation in ERT Program.

Communication Center

-Provides communication capability for the FEMP, monitors site wide alarms, implements system instructions, and makes appropriate notifications when directed.

-Staffed 24 hours a day; technicians monitor, operate, and maintain a full compliment of equipment including FM radios network, CCTV, computerized alarm system, digital telephone switchboard, public address system, encoder to activate the Outdoor Warning System, and the capability to activate emergency response forces.

-Monitors and responses to interface communications with Hamilton County, Butler County, and several local emergency service providers, initiating Mutual Aid responses in accordance with the DOE-FEMP signed Mutual Aid Agreements.

d. WORK SPECIFICALLY EXCLUDED:

-Funding associated with Nuclear Criticality Alarm System operations and

WORK SCOPE DEFINITION

(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 6
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE PAT KRAPS 648-4217	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAE	13. TASK DESCRIPTION (ONE LINE) EMERGENCY SERVICES		

14. ELEMENT TASK DESCRIPTION

maintenance.

SECTION 5

1.0 NARRATIVE

1. PROJECT TITLE: PROGRAM SUPPORT AND OVERSIGHT	2. DATE: 09/10/01	3. PBS #: 12
4.WBS ELEMENT CODE: 1.1.N.C	5. WBS ELEMENT TITLE: ENVIRONMENT, SAFETY, HEALTH & QUALITY	
6. CAM NAME / PHONE: George Gartrell / 3996	7. CAM SIGNATURE:	
8. ORIGINAL / CHANGE SCOPE/ PER CP # :	9. CONTROL ACCOUNT: NCAA	

PART 3: ENVIRONMENTAL, SAFETY, HEALTH & QUALITY (NCAA)

Section 5: Emergency Services (NCAAE)

1.0 NARRATIVE

1.1 OVERVIEW

Emergency Services consists of Emergency Services Administration, Emergency Preparedness and Management, Fire and Safety, and Communications Center. Emergency Services provides support to the site for all facets of emergency response activities.

1.2 ASSUMPTIONS / EXCLUSIONS

1.2.1 Assumptions

1. Estimate based on 24/7 coverage for Fire Protection Inspectors (FF/ERS) and Communications Center Technicians.
2. Estimate based on 40-hour workweek for all other Emergency Services personnel.
3. Estimate based on level of effort to support program and project work plans.
4. Emergency Preparedness and Management (EM) is driven by DOE Order 151.1A and 231.1 in addition to several Code of Federal Regulations for reporting (i.e., SARA), which is expected to remain as a S/RID for the duration of the contract.
5. Fire Protection (FP) is driven by DOE 420.1, 440.1A, OSHA and NFPA standards, which is expected to remain as a S/RID for the duration of the contract.
6. Building and drawing modifications will continue to be reviewed to ensure Fire Protection requirements have been met for the duration of the contract.
7. Training costs, travel costs, materials, supplies and subcontract support are included.
8. Mutual Aid Agreements with the local communities are in place and expected to remain through FY-04.

9. Assumption that after FY-04, local community fire departments will be willing to respond to site for emergencies.

1.2.1 Exclusions

1. ERT members who are Industrial Mechanics that are governed by the labor agreement contract are not included in this scope.
2. Management and Administrative tasks not included. Also not included is Functional Area Manager duties for two functional areas (EM and FP).

1.2.3 Government Furnished Equipment/Services

1. Any mutual aid agreements that may be necessary to provide response to the site after FY-04 have not been taken into consideration.

1.3 DRIVERS

1. The types of hazards remaining at the site, consequences associated with those hazards determine the level of emergency response at the site.
2. The potential for fire and the need for fire protection, and the number of facilities requiring full-time alarm monitoring ability determines the level of emergency services personnel.
3. OSHA and DOE Orders require 24-hour medical response/ first responder at the site.
4. Silos, WPRAP, and combustible metals require emergency response by hazardous material trained responders.
5. The Silos hazards are categorized to an emergency category of Site Emergency, thereby requiring emergency response, planning and management to mitigate an emergency in the silos vicinity.
6. Construction, Silos, Environmental Monitoring and Safety and Health personnel rely on daily meteorological data.
7. DOE has committed Emergency Response to the local communities through existing mutual aid agreements through FY-04.

1.4 SCOPE

The following information provides detail as to the individual physical activities conducted within Emergency Services.

1.4.1 Task #1 - Emergency Preparedness and Management

The scope of work provided by Emergency Preparedness and Management in FY01 includes the following scope:

1. Provides framework for DOE required operational emergency management program commensurate with hazards at the site.
2. Provides the final barrier of the defense-in-depth concept for ensuring the health and safety of the workers and the public and for protecting property and the environment in the event of an emergency.
3. Maintain established communications link to federal, state and local emergency response organizations.
4. Develop, train and drill Emergency Response Team members and Emergency Operations Staff to emergency response scenarios.
5. Maintain and revise site Transportation Emergency Plan to reflect current needs based on hazards associated with shipments.
6. Prepare drills and scenarios to exercise Transportation Emergency Responders.
7. Review and revise site Emergency Plan for DOE approval annually.
8. Review and revise site Emergency Readiness Assurance Plan annually; update associated metrics quarterly and submit to DOE.
9. Maintain existing procedures through periodic review.
10. Using hazardous materials release modeling systems, analyze hazard under worse case scenario.
11. Develop and maintain site Hazard Assessment plan.
12. Conduct Meteorological Monitoring to include maintenance and operation of the meteorological tower.
13. Maintain climatological database for use in evaluating the results of previous activities.
14. Maintain and evaluate synoptic weather events for use in forecasting possible changes in weather conditions that could adversely affect the safety of site personnel and surrounding communities.
15. Review National Weather Service forecast and data to provide general and site specific forecasts.
16. Provide meteorological data during release events to assist in accurate dose assessments.
17. Established federal and state environmental laws under the Emergency Planning and Community Right-to-Know Act (EPCRA) specify emergency planning, management, and notification requirements for accidental releases of hazardous materials.
18. Assist the projects in developing/ reviewing procedures that require emergency preparedness/ emergency response type support.
19. Evaluate releases, collect data, and prepare reports for reportable and non-reportable events.
20. Maintains database of release reports and spill incident tracking.

21. Provide release history information routinely to support various site projects or other annual reporting requirements.
22. Single point of contact regarding release issues and coordination communication with USEPA/OEPA/DOE.
23. Collects data from inventories, inspections, and reports of hazard material to be analyzed in Hazard Assessment process and reports.
24. Prepares and submits SARA 312 and 313 reports as required annually.
25. Reviews and updates procedures relevant to release and non-permitted discharge.
26. Compares hazard quantities to established thresholds to determine if additional analyses are warranted.
27. Provide emergency management coordination to the site.
28. Provide emergency management coordination for off-site.
29. Maintain EOC, mobile EOC, offsite warning system and site-wide alarm systems.
30. Host quarterly meetings with stakeholders from emergency management agencies, including local fire departments, trustees, and law enforcement.
31. Management and clerical support for these functions.

Total Hours = 5,250 (3.6 FTE) Level of Effort

The plan for performing the above Emergency Preparedness and Management scope is to continue the above services until services are modified as follows:

1. By FY-03, the site meteorologist will support the Silos project as an engineer. Emergency Preparedness and Management will maintain the site meteorological system with remaining personnel.
2. During third quarter 2003, eliminate clerical support (1FTE, spread equally among the three tasks within Emergency Services) and utilize existing clerks within the division when support may be necessary.
3. Site Release Evaluator hours will be reduced by 0.5 FTE in 2004. Scope can be maintained at this level with the removal of existing waste streams from the site at that time. This position may be eliminated in FY-09 with the removal of existing quantities of regulated material that may require release evaluation.
4. During 2006, eliminate supervisor position and management support. With fewer site hazards and personnel, it is anticipated that this function is no longer necessary.

The quantification for Emergency Preparedness and Management is based indirectly on the Fluor Fernald, Inc., project and subcontractor manpower. The resource requirements for this and the correlation with site manpower is shown in the following table:

R1-D-002

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
Tech Prog Mgr	1	1	1	1	1	0	0	0	0	0
Release Evaluator	1	1	1	0.5	0.5	0.5	0.5	0.5	0	0
Meteorologist	1	1	0	0	0	0	0	0	0	0
S&H Prog Mgr	0.3	0.3	0.3	0.3	0.3	0	0	0	0	0
Clerk	0.3	0.3	0.3	0	0	0	0	0	0	0
ODCs	8550	8550	5700	5700	2900	0	0	0	0	0
Material	2000	2000	1500	1500	600	500	500	500	0	0
Subcont	56,000	56,000	56,000	31,000	31,000	25,000	25,000	25,000	0	0

1.4.2 Task #2 - Fire Protection

The scope of work provided by Fire Protection in FY01 includes the following scope:

1. Maintain emergency response 24/7
2. Safety oversight for construction on weekends when necessary
3. Conduct training for Fire Department / ERT members
4. Conduct Fire Prevention to site for projects and personnel; support community education programs
5. Provide First Responder training
6. Issue and review open flame and welding permits
7. Review and respond to safety concerns
8. Provide routine fire protection inspection of facilities, buildings and trailers.
9. Conduct routine inspection of fire extinguishers on-site
10. Maintain fire extinguisher database for barcode system
11. Test alarm systems, sprinkler systems, and emergency lighting systems.
12. Surveillance of portable fire extinguishers, fire/ smoke detection systems, fire protection systems and establishing fire watches when necessary.
13. Test and maintain firefighter PPE and equipment
14. Provide back-up for Fire Protection Engineer(s)
15. Address all fire protection concerns
16. Function as Authority Having Jurisdiction (AHJ)/ cognizant engineer
17. Perform Fire Hazard Analysis
18. Responsible for all fire alarm and high-pressure fire main system thereby reviewing and approving changes to the configuration of these systems.
19. Review and approve all new structures for fire protection and changes to existing structures on-site.

20. Provide technical fire protection support to projects (design review, procedure review, operations review, etc.)
21. Test and maintain sprinkler system for the site.
22. Inspect facilities for applicable compliance to NFPA codes.
23. Assist and/or conduct training for site Emergency Response Team members.
24. Assist site utility engineer with site concerns (water main breaks, etc.).
25. Review site procedures to ensure applicability and requirements are met for fire protection.
26. Management and clerical support for these functions.

Total Hours (both A and B) = 21,000 (12.6 FTE) Level of Effort (Does not include Emergency Response Team personnel, i.e., Industrial Mechanics)

The plan for performing the above Fire Protection scope is to continue the above services until services are modified as follows:

1. Manpower estimates for Fire Protection and supporting Emergency Response Team will be maintained, as directed by DOE, through FY-04.
2. During FY-02, decrease staff by 2 FTE, Fire Inspectors. These 2 FTE are planned to support Health and Safety within the projects, while maintaining ERT status for emergency response. Health and Safety support will be needed at that time and Fire Inspectors are trained to support this function.
3. Continue to support ERT utilizing Industrial Mechanics through FY-04 until mutual aid agreements have been dissolved. Once mutual aid agreements are dissolved and hazards have been removed, the scope for emergency response/ fire protection can be maintained through FY-05 with 5 FTE.
4. Beginning in FY-06, determine the need with Health and Safety for additional support from Fire Inspectors. It is anticipated that emergency response will be supported by the local communities. First responder ability to be maintained by trained site personnel.
5. Maintain Fire Protection Engineer through 2010. This role can be reduced to 0.5 FTE while supporting configuration management during design evaluation for FP criteria and other facilities management activities with FP requirements (i.e., trailers, smoke detectors, etc.). 1 FTE Fire Protection Engineer Technician can be eliminated in FY-05 with the anticipated removal of hazards and facilities at the site.
6. After FY-05, eliminate 1 FTE supervisor with decreased level of staff requiring supervision.

The quantification for Fire Protection is based indirectly on the Fluor Fernald, Inc. project and subcontractor manpower. The resource requirements for this and the correlation with site manpower is show in the following table:

R1-D-002

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
S&H Supervisor	1	1	1	1	0	0	0	0	0	0
Fire Protection Engineer	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
FPE Tech	1	1	1	1	1	0	0	0	0	0
Industrial Mechanics	3	3	4	4	0	0	0	0	0	0
Fire Inspectors	9	9	7	7	5	0	0	0	0	0
S&H Prog Mgr	0.3	0.3	0.3	0.3	0.3	0	0	0	0	0
Clerk	0.3	0.3	0.3	0	0	0	0	0	0	0
ODCs	31,306	31,306	25,614	25,614	17,076	0	0	0	0	0
Material	56,545	56,545	55,355	55,355	28,510	500	500	500	500	500
Subcont	110,000	110,000	100,000	100,000	60,000	25,000	25,000	25,000	25,000	25,000

1.4.3 Task #3 - Communications Center

The scope of work provided by the Communications Center in FY01 includes the following scope:

1. Provides site communication capability for FEMP 24/7
2. 24-hour coverage for monitoring site-wide alarms, implements system instructions and makes appropriate notification when directed.
3. Central point of contact for hazardous/ nuclear material transportation shipments (road, rail) from the FEMP to various off-site disposal facilities.
4. 24-hour digital switchboard coverage for contact with AEDO, EDO, Fluor Fernald and DOE Senior management.
5. Per Labor Agreements, central point of contact for call-ins, OT call-back, reporting absences etc.
6. Monitors closed-circuit TV surveillance program at various locations on-site.
7. Point of receipt for process type alarm monitoring (utility fail, emergency generator, fire pump condition etc.)
8. Dispatch for Emergency Response Team to on-site locations for emergencies.
9. Receives and dispatches according to Butler and Hamilton Co. Communications Center, the site Emergency Response Team for mutual aid agreements.
10. Serves as liaison between counties, DOE-HQ and state of Ohio until EOC is operational during site emergencies.
11. Serves as central repository for emergency key control for all site locks when security locksmith unavailable.

12. Provides central point for scheduling conference rooms and video teleconferencing services.
13. Provides 24-hour coverage for monitoring radon via computer around the silos; makes notifications as appropriate.
14. Maintains central tie-in for computerized alarm system, telecommunications system, FM radio system, and encoder to activate Outdoor Warning System (via Emergency message system).
15. Management and clerical support for these functions.

Total Hours = 14,000 (8.6 FTE) Level of Effort

The plan for performing the above Communications Center scope is to continue the above services until services are modified as follows:

1. The Site Switchboard Operator will be transferred to the Information Management Department to further support their scope. IM is in agreement with this move in personnel, to occur by FY-03.
2. In the first quarter of 2005, eliminate ~~one~~ Communications Center Technician since Mutual Aid Agreements should be dissolved.
3. During the first quarter of 2009, eliminate remaining Communications Center Technicians (3 FTE) due to decrease in scope with decreasing population and facilities.

The quantification for the Communications Center is based directly on the Fluor Fernald, Inc., project and subcontractor manpower. The resource requirements for this and the correlation with site manpower is shown in the following table:

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
S&H Supervisor	1	1	1	1	1	0	0	0	0	0
Comm Tech	6	5	5	5	4	3	3	3	0	0
Site Operator	1	1	0	0	0	0	0	0	0	0
S&H Prog Mgr	0.3	0.3	0.3	0.3	0.3	0	0	0	0	0
Clerk	0.3	0.3	0.3	0	0	0	0	0	0	0
ODCs	15,500	15,500	15,500	15,500	11,000	6,500	6,500	6,500	0	0
Material	15,000	15,000	15,000	15,000	12,000	10,000	10,000	10,000	0	0
Subcont	250,000	250,000	250,000	250,000	200,000	200,000	200,000	200,00	0	0

Total Current Staff = 25 (1 open position, Fire Protection Engineer; Does not include site personnel that support ERT function)

SECTION 5

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1NC05 EMERGENCY SERVICES

DRIVERS		START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
201	D&D Summary	10/02/2000	03/30/2007		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX				
301	OSDF Summary Schedule	04/01/2004	12/23/2009																									
411	AWWT Operations	10/02/2000	12/31/2009		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX					
502	WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX					
601	Soils Excavation Project Summary	10/01/2003	12/31/2009		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX					
704	Silos AWR Summary	10/02/2000	10/23/2003		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	X											
710	Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX					
801	Nuclear Materials Summary	10/02/2000	05/20/2002		XXX	XXX	XXX	XXX	XXX	XXX	XX																	
1001	Mixed Waste Summary	10/02/2000	09/30/2003		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX					
1101	Low Level Waste Summary	10/02/2000	09/30/2005		XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX					
EP&M	Environmental		Environmental Scientist Rep.	28.00	2	2	2	2	2	2	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5					
EP&M	Project Management		Tech/Program Support Mgr.	20.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
OPERATOR AN	Administration		Clerks	14.00	2	2	2	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0					
ES/FP/COM	Environmental Safety & H		Safety & Health Mgr.	60.00	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2					
	Security/Emergency Man		Communications Tech.	120.00	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	3	3	3					
FPE	Environmental Safety & H		Fire Protection Rep.	42.50	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5					
FF/ERS	Environmental Safety & H		Safety Tech.	144.00	9	9	9	9	9	9	7	7	7	7	7	7	7	7	7	7	5	5	5					
ERT	Craft Labor		Industrial Mechanic	60.00	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	0	0	0					
Sheet Totals:				478.50	28.00	28.00	28.00	28.00	27.00	27.00	24.00	24.00	23.50	23.50	21.50	21.50	21.00	21.00	21.00	13.00	13.00	13.00	3.00	3.00				

MPS #	1NC05	EMERGENCY SERVICES

DRIVERS		START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
201	D&D Summary	10/02/2000	03/30/2007	xxx	xxx																			
301	OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx								
411	AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx								
502	WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																					
601	Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx								
704	Silos AWR Summary	10/02/2000	10/23/2003																					
710	Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008					xxx	xxx															
801	Nuclear Materials Summary	10/02/2000	05/20/2002																					
1001	Mixed Waste Summary	10/02/2000	09/30/2003																					
1101	Low Level Waste Summary	10/02/2000	09/30/2005																					
Environmental		Environmental Scientist Rep.		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5													
Project Management		Tech/Program Support Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0								
Administration		Clerks		0	0	0	0	0	0	0	0	0	0	0	0	0								
Environmental Safety & Health		Safety & Health Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0								
Security/Emergency Management		Communications Tech.		2	2	2	2	2	2	2	2	0	0	0	0	0								
Environmental Safety & Health		Fire Protection Rep.		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5									
Environmental Safety & Health		Safety Tech.		0	0	0	0	0	0	0	0	0	0	0	0	0								
Craft Labor		Industrial Mechanic		0	0	0	0	0	0	0	0	0	0	0	0	0								
Sheet Totals:				3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	0.50	0.50	0.50	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 5

3.0 ESTIMATE

NCAAE

EMERGENCY SERVICES

Fluor Fernald, Inc.

**ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTEE EQUALS 1747 HOURS)**

DATE: 10-Sep-01

PROJECT MGR: PAT KRAPS
CAM: DANNY WHITAKER-SHEPPARD
PREPARED BY: TRACY BRAUN
FISCAL YEAR: FY01 - FY10

[illegible]

Resource:	CMINTEC	COMMUNICATIONS TECH				Class:		EOC:		LABOR			
Res Dept:		Overtime:						SAL					
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-		
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10		
Yr Hours:		15,212.0	15,445.0	15,445.0	15,445.0	9,715.0	5,731.0	5,731.0	5,731.0	0.0	0.0		
Cum Hours:		15,212.0	30,657.0	46,102.0	61,547.0	71,262.0	76,993.0	82,724.0	88,455.0	88,455.0	88,455.0		
Yr Total Cost:		635,352	690,865	731,765	774,909	524,248	316,967	343,617	362,176	0	0		
Cum Total Cost:		635,352	1,326,217	2,057,982	2,832,891	3,357,139	3,674,106	4,017,723	4,379,899	4,379,899	4,379,899		

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S:\EST FORMS\Ncaae

INCLUDES ESCALATION COSTS

Resource:	SERV SUB	SUBS	SUBCONTRACTORS									
Res Dept:		Overtime:	Class:									
			Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-	
			Sep 01	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	
Yr Units:		334,802.0	416,000.0	406,000.0	381,000.0	291,000.0	250,000.0	250,000.0	250,000.0	25,000.0	25,000.0	
Cum Units:		334,802.0	750,802.0	1,156,802.0	1,537,802.0	1,828,802.0	2,078,802.0	2,328,802.0	2,578,802.0	2,603,802.0	2,628,802.0	
Yr Total Cost:		334,802	427,232	428,220	413,104	324,355	286,736	295,052	303,608	31,241	32,147	
Cum Total Cost:		334,802	762,034	1,190,254	1,603,358	1,927,712	2,214,448	2,509,500	2,813,108	2,844,349	2,876,496	

[illegible]

SY/Account held for George S. Wright

SECTION 5

4.0 RISK PLAN

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**MOVED TO
NON-DEFENSE**

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION (Work Package)

Page 1

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE B.D. VARCHOL 648-4269	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAH	13. TASK DESCRIPTION (ONE LINE) QUALITY ASSURANCE		

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontracts
ODCs
Material

b. TECHNICAL CONTENT:

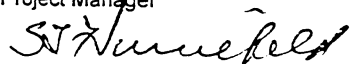
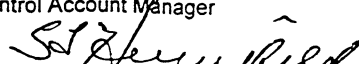
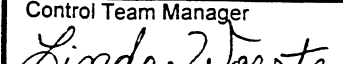
Quality Assurance work package includes department management and administration and supports site-wide quality functional activities which cannot be directly charged to the projects.

The Quality Assurance (QA) department administers the QA program at the FEMP and supports the site by maintaining and enhancing a quality system that ensures compliance with regulations. This includes; QA policy and procedure management; interfacing with DOE for DOE orders and for Ohio, HQ and site issues; performing program/functional area audits, verifications and trend analysis; and coordinating Price Anderson programs.

c. SCOPE OF WORK:

Department Management and Administration

Perform tasks necessary for the operation and management of the QA Department, including staffing, budgeting, personnel management, Price Anderson Amendments Act coordination and establishment of quality policy. Interface with DOE for DOE orders, Ohio, HQ and site issues. Provide quality program direction to the

Project Manager  for George Sartiel	Control Account Manager  for George Sartiel	Control Team Manager 
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WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE B.D. VARCHOL 648-4269	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAH	13. TASK DESCRIPTION (ONE LINE) QUALITY ASSURANCE		

14. ELEMENT TASK DESCRIPTION

Office of the President and the Leadership Team. Support is also provided to the Independent Safety Review Committee (ISRC), the ALARA Committee, the Technical Review Board (TRB), and other Flour Fernald working groups as needed.

Specific activities:

- Manage the Quality Assurance Program, conduct weekly staff meetings, perform annual performance assessment of personnel, and provide overall QA functional administration.
- Attend ISRC, ALARA Committee, and TRB meetings and assist or lead in assigned action items.
- Maintain QA letter files and QA document coordination.
- Develop and provide to area management Quality performance data for use in facilitating compliance and performance improvements.
- Provide management and support to Programmatic Audit and Verification personnel.
- Provide management and administrative support to Data Quality personnel that perform audit and surveillance activities in accordance with the site wide CERCLA Quality Assurance Project Plan (SCQ).
- Coordinate and review site/division procedures.
- Develop and maintain all site functional procedures related to QA and Price Anderson.
- Update and maintain the QA Program (QAP) to reflect current requirements and policies annually.
- Interface with external auditing organizations.
- Coordinate external assessment responses and independently verify selective corrective actions and external commitments for non-project activities.
- Participate in DOE assessments.

Assessments and Quality Systems

Specific activities:

- Conduct audits of functional areas and procedures (includes research, performance, reporting, corrective action follow-up and audit closeout). Note: Operationally significant functions will be audited annually, technical/non operational significant functions will be audited every 2 years and

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 3
3. WBS ELEMENT CODE 1.1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE B.D. VARCHOL 648-4269	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAH	13. TASK DESCRIPTION (ONE LINE) QUALITY ASSURANCE		

14. ELEMENT TASK DESCRIPTION

administrative functions will be audited every 3 to 4 years.
-Develop and administer the independent audit program through closure.
-Coordinate and issue integrated assessment schedule every quarter.
-Provide monthly sitewide quality performance indicators.
-Verify program related corrective actions.

Price Anderson Coordination Programs

Specific activities:

- PAAA program administration.
- Evaluate site deficiency report documents for PAAA applicability.
- Verify completion of PAAA corrective actions and enter data into the NTS database.
- Perform tracking and trending analysis and maintain the PAAA Reporting database.

d. WORK SPECIFICALLY EXCLUDED:

- Project Quality Control activities (e.g. performance of construction, receiving and other inspections and performance of waste certification activities including inspections, surveillances and audits).
- Implementation of 10CFR830, Subpart A.
- Maintenance of the Sitewide CERCLA Quality Plan (SCQ).
- Verifications of project related corrective actions.
- Audits of specific projects (functional audits will focus on a broad range of project activities but will not be focused on specific project performance). However, this charge number does include the cost of reporting the result of assessments across the project.
- Development and maintenance of QC procedures.
- Conduct self-assessments for other organizations.
- Conduct management assessments for other organizations.

SECTION 7

1.0 NARRATIVE

1. PROJECT TITLE: PROGRAM SUPPORT & OVERSIGHT	2. DATE: 09/10/01	3. PBS #: 12
4.WBS ELEMENT CODE: 1.1.N.C	5. WBS ELEMENT TITLE: ENVIRONMENT, SAFETY, HEALTH & QUALITY	
6. CAM NAME / PHONE: George Gartrell / 3996	7. CAM SIGNATURE:	
8. ORIGINAL / CHANGE SCOPE/ PER CP # :	9. CONTROL ACCOUNT: NCAA	

PART 3: ENVIRONMENTAL, SAFETY, HEALTH & QUALITY (NCAA)

SECTION 7: Quality Assurance (NCAAH)

1.0 NARRATIVE

1.1 OVERVIEW

The Quality Assurance (QA) department administers the QA program at the FEMP and supports the site by maintaining and enhancing a quality system that ensures compliance with regulations. This includes; QA policy and procedure management; interfacing with DOE for DOE orders and for Ohio, HQ and site issues; performing program/functional area audits, verifications and trend analysis; and coordinating Price Anderson programs.

1.2 ASSUMPTIONS/EXCLUSIONS

1. QA will remain an Independent Oversight Function at the FEMP
2. QC in Project will be budgeted/and appropriately staffed for QC execution.
3. No additional requirements will be added from DOE or Site Operations.
4. 10 CFR 830 applies through the end of the closure contract.
5. FY01-FY05 reduction of nuclear facilities at FEMP.
6. Records will continue to be needed and readily recoverable/accessible.
7. QA Functional area audit function is maintained as a program element.
8. QA & PAAA Functional area lead/subject technical expert is maintained by QA.
9. QA policies and procedures are well established and aligned with client expectations.
10. QA oversight and documentation requirements will decrease as project work diminishes.
11. QA, Operations Assurance (OA), Environmental Compliance (EC), and Health & Safety (H&S) will consolidate in FY05.

R1-D-024

12. In the 3rd quarter of FY06, the program maintenance and oversight functions of ESH&Q will be consolidated into a single oversight organization and assigned to the Site Manager, which is anticipated to be the Silos Project Manager.

1.2.2 Exclusions

1. ~~This plan does not include resources to implement the new 10 CFR 830; Subpart A requirements which became effective after issuance of the Fluor Fernald contract.~~
2. Project Quality Control (QC) activities (e.g. performance of construction, receiving and other inspections and performance of waste certification activities including inspections, surveillances and audits)
3. Verifications of project related corrective actions
4. Audits of specific projects (functional audits will focus on a broad range of project activities but will not be focused on specific project performance). ~~However, this charge number does include the cost of reporting the result of assessments across the project.~~
5. Development and maintenance of QC procedures
6. Conduct of self assessments for other organizations
7. Conduct of management assessments for other organizations

1.2.3 Government Furnished Equipment/Services

1. DOE will continue to provide and maintain the Non-compliance Tracking System (NTS) database and supporting software for the submittal and retrieval of Price Anderson issues.

1.3 DRIVERS

1. Site closure schedule
 - Continuous work on site
 - Aquifer restoration through closure
 - Facility shutdown through closure
 - Silos through FY07
2. Initial work
 - Waste pits through FY05
 - Nuclear materials through FY05
 - Waste management through FY06
 - Mix waste through FY03
3. Out year work
 - Soils excavation FY03 through FY10
 - OSDF FY06 through FY10
 - D&D FY03 through FY06

4. QA will be contractually required through site closure- Contract No. DE-AC24-010H20115 (Contract) awarded 11/20/00

1.4 SCOPE OF WORK

1.4.1 Task #1 - QA Management and Administration

The scope of work provided by Quality Assurance Management and Administration in FY01 includes the following scope:

1. Quality program direction to the Fluor Fernald Leadership - QA Key Personnel through closure - Contract; 10 CFR Part 830 Nuclear Safety Management, Subpart A Quality Assurance Requirements (830 Rule) 01/10/01, Criterion 1; Best Business Practice (BBP) (360 hrs/yr)
2. QA support provided to the Independent Safety Review Board (1 meeting/month), the ALARA Committee (1 meeting every 2 months) and the Technical Review Board (1 meeting/month plus 4 major documents reviewed/month) - Contract; BBP (120 hrs/yr)
3. Provide QA budgets, staffing, personnel management and administrative support (15 QA Professionals) - RM-0016 Management Plan Rev. 41 (RM-0016) 10/06/2000; BBP (1,440 hrs/yr)
4. Maintain QA letter files and QA document coordination through closure - MS-0008 Rev2 5/7/99 Filing and Maintenance of Records; RM-0012 Quality Assurance Program Rev. 5 (RM-0012) 05/01/2000; 830 Rule Criterion 4 (120 hrs/yr)
5. Develop and provide to area management Quality performance data for use in facilitating compliance and performance improvements through closure - 830 Rule Criterion 3; PL-3081 Safety Management System Description Rev. 2 (SMSD) 8/15/00; Integrated System Management (ISM) (480 hrs/yr)
6. Provide management and support to Programmatic Audit and Verification personnel - 830 Rule Criterion 2; HR Policies including HR-0201 Performance Planning and Assessment Rev. 6 (PPA) 8/31/00 (HR Policies) (960 hrs/yr)
7. Provide management and administrative support to Data Quality personnel that perform audit and surveillance activities in accordance with the sitewide CERCLA Quality Assurance Project Plan (SCQ) - 830 Rule Criterion 2; HR-Policies; Federal Facility Compliance Agreement (FFCA), U.S. EPA Docket No. FFCA-HW-001 7/6/88; Amended Consent Agreement, Administrative Docket No. V-M-90-C-057 (120 hrs/yr)
8. Provide support to the assessment scope of QA, OA, EC, and H&S.

Subtotal hours/year - 3,600 = 2.0 FTE

The plan for performing the above Quality Assurance Management and Administration scope is to continue the above services until services are modified as follows:

R1-D-026

R1-D-027

R1-D-028

1. In FY03, the administration and conduct of the central core audit function will be significantly reduced (Reduce .5 FTE).
2. In FY04, the maintenance of QA letter logs, files and audit records and the publication of the Integrated Assessment Schedule will be reduced to a minimum level (Reduce .5 FTE).
3. QA Management and Administration will be required through closure to maintain the level of support and services required by the contract. The resources necessary to accomplish this scope will remain relatively constant from FY04 through FY07.
4. In FY05, provide management and support to the consolidated assessment scope of QA, OA, EC, and H&S.
5. In the 3rd quarter of FY06, the program maintenance and oversight functions of ESH&Q will be consolidated into a single oversight organization and assigned to the Site Manager, which is anticipated to be the Silos Project Manager.
6. From FY08 through closure, as site work and population decreases, less time will be required to fulfill this effort (Reduce .5 FTE).

The quantification for Quality Assurance Management and Administration is based indirectly on the Fluor Fernald, Inc. project and subcontractor manpower. The resource requirements for this and the correlation with the site manpower is shown in the following table:

QA Task #1	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
QA Program Manager (FTE)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.25	0.3	0.3
Quality Assurance Engineer (FTE)	0.75	0.75	0.25	0.25	0.25	0.25	0.25	0.0	0.0	0.0
Administrative Support Clerk (FTE)	0.75	0.75	0.75	0.25	0.25	0.25	0.25	0.25	0.2	0.0
Total QA Task #1 (FTE)	2.0	2.0	1.5	1.0	1.0	1.0	1.0	0.5	0.5	0.3
Matls. (\$000)*	\$6.7	\$6.7	\$5.0	\$3.3	\$3.3	\$3.3	\$3.3	\$1.7	\$1.7	\$1.0
ODC's (\$000)*	\$12.3	\$11.5	\$9.9	\$9.4	\$8.6	\$8.6	\$5.9	\$5.8	\$5.5	\$5.0

*Unescalated dollars

1.4.2 Task #2 – Quality Assurance Policy and Procedure Management

The scope of work provided by Quality Assurance Policy and Procedure Management in FY01 includes the following scope:

1. Coordinate and review site/division procedures at a rate of approximately twenty (20) significant actions per week - 830 Rule Criterion 4; 830 Rule Criterion 5 (960 hrs/yr)
2. Develop and maintain all site functional procedures (approximately 450) related to QA and Price Anderson - 830 Rule Criterion 4 (960 hrs/yr)
3. Update and maintain the QA Program (QAP) to reflect current requirements and policies annually through closure - 830 Rule (960 hrs/yr)

Subtotal hours/year - 2,880 = 1.6 FTE

The plan for performing the above Quality Assurance Policy and Procedure Management scope is to continue the above services until services are modified as follows:

1. In FY02, Fluor Fernald QA Department will evaluate and implement efficiencies in the review and processing of site procedures (Reduce 1 FTE).
2. After FY03, QA workload will reduce in conjunction with the maturity of several key projects (i.e. Aquifer, Nuclear Materials, and Mixed Waste) (Reduce .5 FTE)
3. From FY08 through closure, as site work and population decreases, less time will be required to fulfill this effort and it will be shared with other QA tasks.

The quantification for Quality Assurance Policy and Procedure Management is based indirectly on the Fluor Fernald, Inc., project and subcontractor manpower. The resource requirements for this and the correlation with the site manpower is shown in the following table:

QA Task #2	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	89
QA Program Manager (FTE)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	.15	0.1	0.1
Quality Assurance Engineer (FTE)	2.0	1.0	1.0	0.5	0.5	0.5	0.5	.15	0.0	0.0
Administrative Support Clerk (FTE)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total QA Task #2 (FTE)	2.0	1.0	1.0	0.5	0.5	0.5	0.5	0.3	0.1	0.1
Matls. (\$000)*	\$6.7	\$3.3	\$3.3	\$1.7	\$1.7	\$1.7	\$1.7	\$1.0	\$0.3	\$0.3

*Unescalated dollars

1.4.3. Task #3 - Interface with DOE for DOE orders, Ohio, HQ and Site Issues

1. Interface with external auditing organizations (1per month) - Contract, Cost Reimbursement Inspection of Services E-1 52.246-5; 830 Rule (480 hrs/yr)
2. Coordinate external assessment responses and independently verify selective corrective actions and external commitments for non-project activities (150 per year). - Contract; 830 Rule (960 hrs/yr)
3. DOE assessment participation (1 every 2 months). - Contract; 830 Rule (720 hrs/yr)
4. Verification of new requirement changes (1 per quarter). - Contract; RM-0016 (420 hrs/yr)
5. Review and coordinate changes in CFR requirements/regulations, which must be incorporated into programs (4 per year). - Contract; RM-0016 (480 hrs/yr)

Subtotal hours/year - 3,060 = 1.7 FTE

The plan for performing the above Quality Assurance Interface with DOE scope is to continue the above services until services are modified as follows:

1. In FY02, Fluor Fernald QA Department will only participate in DOE joint assessments or in the coordination of external audits for significant areas (Reduce 1 FTE).
2. In FY03, the Interface scope with DOE for DOE orders, Ohio, HQ and Site Issues will be reduced to a minimal effort (Reduce 1 FTE).

The quantification for Quality Assurance Interface with DOE is based indirectly on the Fluor Fernald, Inc. project and subcontractor manpower. The resource requirements for this and the correlation with the site manpower is shown in the following table:

QA Task #3	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
QA Program Manager (FTE)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quality Assurance Engineer (FTE)	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative Support Clerk (FTE)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total QA Task #3 (FTE)	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Matis. (\$000)*	\$6.7	\$3.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

*Unescalated dollars

1.4.4 Task #4 - Program Audits & Verification and Trend Analysis

The scope of work provided by Program Audits & Verification and Trend Analysis in FY01 includes the following scope:

1. Conduct approximately 18 audits of functional areas and procedures per Fiscal Year (includes research, performance, reporting, corrective action follow-up and audit closeout). Note: Operationally significant functions will be audited annually (Approximately 12 per year), technical/non operational significant functions (approximately 4 per year) will be audited every 2 years and administrative functions (approximately 2 per year) will be audited every 3 to 4 years. - 830 Rule; RM-0012 (9,940 hrs/yr)
2. Develop and administer the independent audit program through closure. - 830 Rule; HR Policy (480 hrs/yr)
3. Coordinate and issue integrated assessment schedule every quarter. - 830 Rule; ISM (160 hrs/yr)

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030

4. Provide monthly site wide quality performance indicators reports based on the results of assessments conducted under this, and other work scope monthly. - 830 Rule; ISM (240 hrs/yr)
5. Verification of program related corrective actions at a rate of approximately four (4) per week. - 830 Rule; RM-0012 (9,120 hrs/yr)

Subtotal hours/year - 19,940 = 11.0 FTE

The plan for performing the above Program Audits & Verification and Trend Analysis scope is to continue the above services until services are modified as follows:

1. In FY02, Fluor Fernald QA Department will evaluate and implement efficiencies in the Audit and Verification process. The change will involve an increased focus on vital safety/operationally significant activities and a decreased focus on non-operationally significant or administrative processes. It will also include a change in the non-conformance and verification process along these same lines (Reduce 1 FTE).
2. In FY02 QA will reduce functional area audits by 33% (18 to 12) and significantly reduce the independent verification of external commitments (Reduce 3 FTE).
3. In FY03, the administration and conduct of the central core audit function will be reduced to a minimal effort (Reduce .5 FTE).
4. In FY03 QA will reduce the functional audits by another 20% (from 12 to 10) (Reduce .5 FTE).
5. In FY04, the maintenance of QA letter logs, files and audit records and the publication of the Integrated Assessment Schedule will be reduced to a minimal effort (Reduce .5 FTE).
6. In FY04 QA will reduce the functional audits by another 20% (from 10 to 8) (Reduce .5 FTE).
7. From FY06 through closure, as site work and population decreases, less time will be required to fulfill this effort (Reduce approximately .5 FTE per year Through FY10).

The quantification for Program Audits & Verification and Trend Analysis is based indirectly on the Fluor Fernald, Inc. project and subcontractor manpower. The resource requirements for this and the correlation with the site manpower is shown in the following table:

R1-D-002	QA Task #4	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
	Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
R1-F12-54	QA Program Manager (FTE)	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.35	0.4	0.4
	Quality Assurance Engineer (FTE)	9.0	5.0 4.0	4.0 3.0	3.0 2.0	3.0 2.0	2.5 1.0	2.0 1.0	1.1 0.1	0.4 0	0.0
R1-F12-54	Administrative Support Clerk (FTE)	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.2 0	0.0
	Total QA Task #4 (FTE)	9.5	5.5 4.0	4.5 3.0	3.5 2.0	3.5 2.0	3.0 2.0	2.5 1.0	1.7 0.7	1.0 0.4	0.4
	Matis. (\$000)*	\$31.6	\$18.3	\$15.0	\$11.6	\$11.6	\$10.0	\$8.3	\$5.7	\$3.3	\$1.3
	ODC's (\$000)*	\$0.5	\$0.5	\$0.5	\$0.2	\$0.2	\$0.1	\$0.1	\$0.0	\$0.0	\$0.0

*Unescalated dollars

1.4.5 Task #5 - Price Anderson Coordination Program

The scope of work provided by the Price Anderson Coordination Program in FY01 includes the following scope:

1. PAAA program administration through closure. - 10 CFR Part 820 Procedural Rules for DOE Nuclear Activities (820 Rule) 3/22/00; 830 Rule; 10 CFR Part 835 Occupational Radiation Protection (835 Rule) 12/14/93; ISM (240 hrs/yr)
2. Evaluate site deficiency report documents for PAAA applicability (2,600 per year). - 820 Rule; 830 Rule; 835 Rule; ISM (2,280 hrs/yr)
3. Verify completion of PAAA corrective actions and enter data into the NTS database (8 reports per year and 100 corrective actions).- 820 Rule; 830 Rule; 835 Rule; ISM (480 hrs/yr)
4. Perform tracking (ongoing) and trending analysis (historically 1 per month) and maintain the PAAA Reporting database through closure. - 820 Rule; 830 Rule; 835 Rule (120 hrs/yr)

The plan for performing the above Quality Assurance scope is to continue the above services until services are modified as follows:

1. In FY04, QA will decrease verification of corrective actions for Price-Anderson reports (Reduce .5 FTE).
2. In FY06, QA will reduce (based on an improved decentralized process) the central screening and reporting of Price Anderson Issues and rely more on project screening (Reduce .5 FTE)
3. From FY09 through closure, as site work and population decreases, less time will be required to fulfill this effort and it will be shared

The quantification for Quality Assurance is based indirectly on the Fluor Fernald, Inc. project and subcontractor manpower. The resource requirements for this and the correlation with the site manpower is shown in the following table:

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QA Task #5	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
QA Program Manager (FTE)	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.2	0.2
Quality Assurance Engineer (FTE)	1.25	1.25	1.25	0.75	0.75	0.25	0.25	0.25	0.2	0.0
Administrative Support Clerk (FTE)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total QA Task #5 (FTE)	1.5	1.5	1.5	1.0	1.0	0.5	0.5	0.5	0.4	0.2
Matls. (\$000)*	\$5.0	\$5.0	\$5.0	\$3.3	\$3.3	\$1.7	\$1.7	\$1.7	\$1.3	\$0.7

*Unescalated dollars

1.4.6 Manpower Summary

Quality Assurance manpower is based indirectly on the Fluor Fernald, Inc. project and subcontractor manpower. The resource requirements for QA Tasks 1 through 5 and the correlation with the site manpower is summarized in the following table:

R1-D-002

R1-F12-54

QA Total (Tasks 1 -5)	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
QA Program Manager (FTE)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Quality Assurance Engineer (FTE)	15.0	9.0 8.0	6.5 5.0	4.5 3.0	4.5 3.0	3.5 2.0	3.0 2.0	1.5 0.5	0.6 0.2	0.0
Administrative Support Clerk (FTE)	1.0	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.4 0.2	0.0
Total QA (FTE)	17.0	11.0 10.0	8.5 7.0	6.0 5.0	6.0 5.0	5.0 4.0	4.5 3.0	3.0 2.0	2.0 1.4	1.0
Matls. (\$000)*	\$56.7	\$36.6	\$28.3	\$19.9	\$19.9	\$16.7	\$15.0	\$10.1	\$6.6	\$3.3
ODC's (\$000)*	\$12.8	\$12.0	\$10.4	\$9.6	\$8.8	\$8.8	\$6.0	\$5.8	\$5.5	\$5.0

*Unescalated dollars

SECTION 7

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1NC07 QUALITY ASSURANCE

DRIVERS	START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
301 OSDF Summary Schedule	04/01/2004	12/23/2009																									
411 AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
502 WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
601 Soils Excavation Project Summary	10/01/2003	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
704 Silos AWR Summary	10/02/2000	10/23/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x											
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
801 Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xx																	
1001 Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
1101 Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Project Management			37.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
QA/QC			164.00	16	16	15	15	8	8	8	8	5.5	5.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	2.5	2.5	2.5	2.5
Administration			23.60	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Sheet Totals:				224.60	18.00	18.00	17.00	17.00	10.00	10.00	10.00	7.50	7.50	7.50	7.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00

MPS #	1NC07	QUALITY ASSURANCE

MPS # 1NC07

DRIVERS		START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201	D&D Summary	10/02/2000	03/30/2007	xxx	xxx																		
301	OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx		
411	AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx		
502	WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																				
601	Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx		
704	Silos AWR Summary	10/02/2000	10/23/2003																				
710	Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008	xxx	xxx	xxx	xxx	xxx	xxx														
801	Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001	Mixed Waste Summary	10/02/2000	09/30/2003																				
1101	Low Level Waste Summary	10/02/2000	09/30/2005																				
	Project Management		Program Mgr.	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0		
	QA/QC		QA Engineer	2	2	2	2	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0		
	Administration		Clerks	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0	0	0	0	0	0		
Sheet Totals:				3.50	3.50	3.50	3.50	2.00	2.00	2.00	2.00	1.40	1.40	1.40	1.40	1.00	0.00	0.00	0.00	0.00	0.00	0.00	

SECTION 7

3.0 ESTIMATE

NCAAH

QUALITY ASSURANCE

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTEE EQUALS 1747 HOURS)

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTEE EQUALS 1747 HOURS)

FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

(1 FTE EQUALS 1747 HOURS)

(1 FIE EQUALS 1741 HOURS)

PROJECT MGR: BRINLEY VARCHOL
CAM: DANNY WHITAKER-SHEPPARD
PREPARED BY: TRACY BRAUN
FISCAL YEAR: FY01 - FY10

Resource:	MAT300	MATERIAL OBJCLASS300	Class:				EOC:		MATERIAL			
Res Dept:		Overtime:					MAT					
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-	
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	
Yr Units:		56,699.0	36,600.0	28,300.0	19,900.0	19,900.0	16,700.0	15,000.0	10,100.0	6,600.0	3,300.0	
Cum Units:		56,699.0	93,299.0	121,599.0	141,499.0	161,399.0	178,099.0	193,099.0	203,199.0	209,799.0	213,099.0	
Yr Total Cost:		56,699	37,588	29,849	21,577	22,181	19,154	17,703	12,266	8,248	4,243	
Cum Total Cost:		56,699	94,287	124,136	145,713	167,894	187,048	204,751	217,017	225,264	229,508	

[illegible]

INCLUDES ESCALATION COSTS

CAM 5.04 Secured for George Santell CONTROL TEAM Linda Webster

SECTION 7

4.0 RISK PLAN

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WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 1
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE BILL HARRISON 648-4061	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAK	13. TASK DESCRIPTION (ONE LINE) OPERATIONS ASSURANCE		

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontracts
Materials
ODCs

b. TECHNICAL CONTENT:

The functions of the Operations Assurance Organization are to provide management, administrative and oversight support for the implementation of the DOE Conduct of Operations program, the Pre-Operational Assessment and Readiness Program, the Lessons Learned and Required Reading Programs, and the DOE Occurrence Reporting and Incident Investigation Programs.

These functions and scopes will be transferred to the Quality Assurance Organization after FY 2004 and to the Site Manager in FY 2007.

c. SCOPE OF WORK:

Maintain the FF Independent Safety Review Committee

- Directly support the Leadership Team by independently reviewing key safety program performance annually.
- Perform comprehensive safety management investigations of any area of concern as requested by the Leadership Team.
- Maintain the site independent Safety Review Committee including the Charter

Project Manager

SP Hummel

for George Sartrell

Control Account Manager

SP Hummel

for George Sartrell

Control Team Manager

Linda Woeste

WORK SCOPE DEFINITION

(Work Package)

Page 2

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE BILL HARRISON 648-4061	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAK	13. TASK DESCRIPTION (ONE LINE) OPERATIONS ASSURANCE		

14. ELEMENT TASK DESCRIPTION

and supporting procedures.

- Provide Committee leadership and select, train, and qualify membership from across FF and outside agencies as needs for specialized technical expertise arise.

Maintain the Site wide Conduct of Operations Program

- Manage the Operations Functional Area and related site operating procedures.
- Maintain the site Conduct of Operations program (RM-0029) and site implementing procedures.
- Act as primary DOE interface on ConOps related issues, including assessments.
- Perform FF independent assessments of ConOps implementation.
- Mentor ConOps program implementation site wide.
- Maintain, monitor, track, and trend the Event Discovery Reports/Final Event Reports (EDRs/FERs).

Maintain the Site Pre-operational Assessment Program (RM-0025)

- Maintain site implementing procedures.
- Initiate, maintain, and issue the Startup Notification Report (SNR) as required by DOE Order 425.1A.
- Serve as prime interface with DOE/FEMP regarding facility or activity readiness to operate.
- Train and qualify assessment team personnel to perform independent readiness assessments.
- Perform required pre-operational assessments.
- Mentor pre-operational readiness assessment program implementation.

Maintain the Site wide Lessons Learned and Required Reading Programs

- Administer the site Lessons Learned program and maintain synergy with the Society for Effective Lessons Learned Sharing (SELLS).
- Issue ConOps bulletins.
- Maintain site procedures.
- Develop and disseminate Lessons Learned video productions.
- Serve as the prime FF interface with DOE on Lessons Learned issues.
- Develop and maintain the FEMP Lessons Learned internet "Homepage".
- Obtain, review, and disseminate lessons from other DOE sites which have value at the FEMP.
- Facilitate communication among FF teams through facilitation of Lessons

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 3
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE BILL HARRISON 648-4061	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAK	13. TASK DESCRIPTION (ONE LINE) OPERATIONS ASSURANCE		

14. ELEMENT TASK DESCRIPTION

Learned "Core Team".

- Serve as liaison for the site Required Reading program.

Maintain the Occurrence Reporting and Investigation Programs (ORPS)

- Administer the site wide Occurrence Reporting and Investigation Program.
- Provide interpretation of reporting requirements to the AEDO and EDO for categorization and classification of events.
- Develop and maintain procedures.
- Prepare and transmit DOE ORPS notifications.
- Maintain original ORPS files.
- Lead critiques and debriefings.
- Participate on investigation teams.
- Prepare root cause analysis for events.
- Conduct site Root Cause Analyses training.
- Gather, monitor, track, and trend site reporting information, e.g., EDRs, ORPS, NCRs, RDRs, Safety Walkthroughs, etc.

d. WORK SPECIFICALLY EXCLUDED:

None.

SECTION 8

1.0 NARRATIVE

1. PROJECT TITLE: PROGRAM SUPPORT AND OVERSIGHT	2. DATE: 09/10/01	3. PBS # : 12
4.WBS ELEMENT CODE: 1.1.N.C	5. WBS ELEMENT TITLE: ENVIRONMENTAL, SAFETY, HEALTH AND QUALITY	
6. CAM NAME / PHONE: George Gartrell / 3996	7. CAM SIGNATURE:	
8. ORIGINAL / CHANGE SCOPE/ PER CP # :	9. CONTROL ACCOUNT: NCAA	

PART 3: ENVIRONMENTAL, SAFETY, HEALTH & QUALITY (NCAA)

Section 8: Operations Assurance (NCAAK)

1.0 NARRATIVE

1.1 OVERVIEW:

The functions of the Operations Assurance Organization are to provide management, administrative and oversight support for the implementation of the DOE Conduct of Operations program, the Pre-Operational Assessment and Readiness Program, the Lessons Learned and Required Reading Programs, and the DOE Occurrence Reporting and Incident Investigation Programs.

These functions and scopes will be transferred to the Quality Assurance Organization after FY 2004 and to the Site Manager in FY 2007.

1.2 ASSUMPTIONS / EXCLUSIONS:

1.2.1 Assumptions

1. Estimate is based on a 40-hour work week.
2. Estimate is based on level of effort to support Project work plans.
3. DOE O 5480.19, which will remain part of the S/RID for the duration of the contract, is the source document that drives Conduct of Operations.
4. DOE O 425.1A, which will remain part of the S/RID for the duration of the contract, is the source document that drives the Readiness Program.
5. DOE O 232.1A, which will remain part of the S/RID for the duration of the contract, is the source document that drives Occurrence Reporting and Processing of Operations Information.
6. Maintenance of the TapRoot® Root Cause Analysis System and Readiness Training will continue for the duration of the contract.
7. Training costs, travel costs, subcontract support, materials, supplies, and taxes are included.

1.2.2 Exclusions

1. Project-level event reporting, investigations, corrective action development, lessons learned, and required reading activities are excluded.

1.2.3 Government Furnished Equipment/Services

1. DOE will continue to provide and maintain the Occurrence Reporting and Processing System (ORPS) database and supporting software for the submittal and retrieval of DOE Contractor Occurrence Reports.

1.3 DRIVERS:

1. Site Projects (e.g., WPRAP, Radon Control System, Silos 1 & 2, AWR, NMD, Waste Disposition scopes and schedules) will drive Pre-Operational and Readiness Assessments ~~as defined on the Startup Notification Report (SNR).~~
2. Site Project activities and operations will drive required oversight and response to abnormal events experienced at the Projects.
3. The severity of the abnormal unplanned events and conditions at the Projects will drive the level of effort required for evaluation, investigation, correction, and reporting of occurrences.

1.4 SCOPE OF WORK:

1.4.1 Task#1 - Conduct of Operations

The scope of work provided by Operations Assurance involves the following:

1. Maintain OP Functional Area procedures on an annual basis (1180 hrs/yr)
2. Maintain OP performance indicators on a monthly basis (360 hrs/yr)
3. Administer Pre-Operational Assessment and Conduct of Operations Assessment and Monitoring Programs as indicated on the sitewide assessment schedule-12 per year(360 hrs/yr)
4. Interact with and maintain client relations on site Conduct of Operations –two visits per week (360 hrs/yr)
5. Develop and maintain Conduct of Operations Project Matrices required annually (460 hrs/yr)
6. Research and issue Conduct of Operations Bulletins performed on a monthly basis (380 hrs/yr)
7. Mentor Project in Conduct of Operations and Readiness Programs. (720 hrs/yr)
8. Develop/conduct Conduct of Operations-related training(340 hrs/yr)
9. Maintain Event Discovery Report (EDR) and Final Event Report (FER) records as required per event (320 hrs/yr)
10. Track and trend operational data from EDRs and FERs periodically for lessons learned (380 hrs/yr)

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55

11. Participate in DOE Conduct of Operations Assessments (610 hrs/yr)
12. Maintain Requirements Manuals (RM-0025 and RM-0029) on an annual basis and review new DOE Requirements (360 hrs/yr)
13. Administer OP Functional Area (procedures, forms, meetings, action items) review required annually (720 hrs/yr)

Total hours/year - 6,550 = 3.7 FTE

The plan for performing the above Conduct of Operations scope is to continue until services until services are modified as follows:

1. Manpower requirements listed are to maintain the level of support and services based on current site activity and population, under the assumption that the DOE Orders listed above will be requirements for the length of the contract.
2. After FY 2003, the NMD, Mixed Waste, Silos AWR, and Waste Pits Projects should be completed. Therefore, the level of OA oversight and support is expected to be reduced as shown on the table below.
3. After FY 2004, it is expected that the OA scope for independent assessments will be transferred to QA. This should further reduce OA-required manpower as shown on the table below.
4. In FY 2006 and 2007, the OA functions and responsibilities and scope will be transferred to the Site Manager, further reducing the manpower as shown on the table below.

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The quantification for Conduct of Operations is based indirectly on the Flour Fernald, Inc., project and subcontractor manpower. The resource requirements for this ~~and the correlation with the site manpower~~ is shown on the following table:

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
Ops Assurance	4.0	4.0	4.0	3.0	2.0	0.0	0.0			

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1.4.2 Task #2 Pre-Operational and Readiness Assessment Programs

The scope of work provided by Pre-Operational and Readiness Assessment Programs in FY01 involves the following scope:

1. Maintain the site Pre-Operational and Readiness Assessment Programs and site implementing with review procedures required annually for two RMs and 19 OPs. (800 hrs/yr)
2. Maintain and issue the Startup Notification Report (SNR) on a quarterly basis (360 hrs/yr)

3. Provide mentoring support to Projects to facilitate readiness. (1000 hrs/yr)
4. Serve as prime contact and interact with DOE on site readiness issues.(400 hrs/yr)
5. Develop/conduct Readiness training ~~as defined by the SNR~~. (520 hrs/yr)
6. Train and qualify assessment team personnel to perform independent readiness assessments as required by the SNR.(600 hrs/yr)
7. Conduct Standard Startup Reviews (SSR), Readiness Assessments (RA), and Operational Readiness Reviews (ORR). The Line organization defines which projects need Pre-Operational Reviews. (1850 hrs/yr).

Total hours/year - 5,530 = 3.2 FTE

The plan for performing the above Pre-Operational and Readiness Assessment Programs scope is to continue the above services are modified as follows:

1. Manpower requirements listed to maintain the level of support and services based on current and future facility startup and/or restart activities and population, under the assumption that the DOE Orders listed above will be requirements for the length of the contract.
2. After FY 2003, the NMD, Mixed Waste, Silos AWR, and Waste Pits Projects should be completed. Therefore, the level of OA oversight and support is expected to be reduced as shown on the table below.
3. After FY 2004, it is expected that the OA scope for independent assessment functions will be transferred to QA. This should further reduce OA-required manpower as shown on the table below.
4. In FY 2006 and 2007, the OA functions and responsibilities and scope will be transferred to the Site Manager, further reducing the manpower as shown on the table below.

The quantification for Pre-Operational and Readiness Assessment Programs is based indirectly on the Fluor Fernald, Inc., project startups and or/or restarts of facilities. In FY 2006 the scope will be transferred to the Site Manager. The resource requirements for this is shown in the following table:

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
Ops Assurance	1.0	1.0	1.0	1.0	0	0	0	0	0	0

1.4.3 Task #3 Lessons Learned and Required Reading

The scope of work provided by Lessons Learned and Required Reading Programs are real time initiatives. Each Lesson Learned item is to be communicated and incorporated into daily work practices.

1. Maintain the site Lessons Learned (LL) Program (procedures, processes, reports) annually. (225 0 hrs/yr)
2. Issue LL Bulletins periodically. (135 0 hrs/yr)
3. Develop and disseminate LL video productions (150 0 hrs/yr)
4. Develop and maintain the LL Internet homepage. This is a real time effort. (205 0 hrs/yr)
5. Serve as prime interface with DOE on LL issues participating in at least four meeting per month. (250 0 hrs/yr)
6. Obtain, review and disseminate LL for other DOE sites. Real time initiative (270 0 hrs/yr)
7. Monitor FEMP Occurrence Report information and other information sources to ensure applicable experiences are shared with site Projects. Real time initiative. (310 0 hrs/yr)
8. Monitor Pre-Operational Assessment Final Reports to ensure applicable experiences are shared with site Projects (270 0 hrs/yr)
9. Facilitate communication and coordination among Project LL Coordinators through monthly meetings (270 0 hrs/yr)
10. Administer and maintain the site Required Reading Program. This is a real time initiative. (360 0 hrs/yr)

Total hours/year - 2,445 0 = 1.4 0 FTE

The plan for performing Lessons Learned and Required Reading scope is to continue the above services until the services are modified as follows:

1. Manpower requirements listed to maintain the level of support and services based on current site activity and population, under the assumption that the DOE Orders listed above will be requirements for the length of the contract.
2. After FY 2001, the Lessons Learned and Required Reading scope will be absorbed by the Occurrence Reporting and Investigation Programs until transference of scope after FY 2004
3. After FY 2003, the NMD, Mixed Waste, Silos AWR, and Waste Pits Projects should be completed. Therefore, the level of OA oversight and support is expected to be reduced as shown on the table below.
4. After FY 2004, it is expected that the OA scope for independent assessment functions will be transferred to QA. This should further reduce OA-required manpower as shown on the table below.
5. In FY 2006 and 2007, the OA functions and responsibilities and scope will be transferred to the Site Manager, further reducing the manpower as shown on the table below.

The quantification for Lessons Learned and Required Reading is based indirectly on the Fluor Fernald, Inc., project and subcontractor manpower. The resource

requirements for this and the correlation with the site manpower is shown on the following table:

	01	02	03	04	05	06	07	08	09	10
R1-D-002 Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
R1-F12-55 Ops Assurance	1.0	1.0 0	1.0 0	1.0 0	1.0 0	0	0	0	0	0

1.4.4 Task #4 - Occurrence Reporting and Investigation Programs

The scope of work provided by the Occurrence Reporting and Investigation Programs are real time initiatives and require continual maintenance and review. This includes the following scope:

1. Administer the site-wide Occurrence Reporting and Investigation Programs. Real time initiative (550 ~~360~~ hrs/yr)
2. Develop and maintain reporting, investigation, and analysis procedures required annually (220 ~~145~~ hrs/yr)
3. Prepare and transmit all DOE ORPS Notification, Update, and Final Occurrence Reports. Real time initiative (525 ~~350~~ hrs/yr)
4. Maintain Occurrence Reporting and Investigation records (270 ~~180~~ hrs/yr)
5. Facilitate event debriefings and critiques. Real time (1300 ~~860~~ hrs/yr)
6. Lead event investigations. Real time (1200 ~~795~~ hrs/yr)
7. Perform, review, and approve root cause analyses for reportable and non-reportable events. Real time (850 ~~565~~ hrs/yr)
8. Conduct Root Cause Analysis Training for site employees (540 ~~360~~ hrs/yr)

Total hours/year - 5,455 ~~3,600~~ = 3.1 ~~2.0~~ FTE

The plan for performing the above Occurrence reporting and Investigation Programs scope is to continue the above services until services are modified as follows:

1. Manpower requirements listed are to maintain the level of support and services based on current site activity related to events and occurrences experienced by projects performing work under the assumption that the DOE Orders listed above will be requirements for the length of the contract.
2. After FY 2003, the NMD, Mixed Waste, Silos AWR, and Waste Pits Projects should be completed. Therefore, the level of OA oversight and support is expected to be reduced

3. After FY 2004, it is expected that the OA and QA independent assessment functions will merge. This should further reduce OA-required manpower.
4. In FY 2006 and 2007, the OA functions and responsibilities should be transferred to the Site Manager, further reducing the manpower.

The quantification for Occurrence Reporting and Investigation Programs is based indirectly on the Fluor Fernald, Inc., project and subcontractor. The resource requirements for this and the correlation with the site manpower is shown on the following table based on past experience and expected reduction in number of reportable events:

R1-
F12-
55

R1-
D-
002

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
Ops Assurance	3.0	3.0 2.0	3.0 2.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0

SECTION 8

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1NC08 OPERATION ASSURANCE

DRIVERS	START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
301 OSDF Summary Schedule	04/01/2004	12/23/2009																									
411 AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
502 WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
601 Soils Excavation Project Summary	10/01/2003	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
704 Silos AWR Summary	10/02/2000	10/23/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x											
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
801 Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx																
1001 Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx											
1101 Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
QA/QC			20.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
QA Manager																											
QA/QC			66.00	5	5	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0
QA Engineer																											
Waste Management			12.00	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Waste Engineer																											
Project Management			48.00	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	1	1	1	1	0	0	0	0
Program Mgr.																											
Tech/Program Support Rep.			23.00	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
Engineering & Design			1.00	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engineer																											
Sheet Totals:			176.00	12.50	12.50	11.00	11.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	7.00	7.00	7.00	7.00	6.00	6.00	6.00	5.00	0.00	0.00	0.00	0.00

MPS #	1NC08	OPERATION ASSURANCE

[illegible]

SECTION 8

3.0 ESTIMATE

NCAAK

OPERATIONS ASSURANCE

Fluor Fernald, Inc.

PROJECT MCD: RUII 11801010

PROJECT MGR.: BILL HARRISON

CAM: DANNY WHITAK:

PREPARED BY: TRACY BRAUN

Resource:	ENGINEER	LABOR											
Res Dept:	Overtime:	EOC:: SAL											
		Class:											
Yr Hours:	Oct 00- Sep 01 284.5	Oct 01- Sep 02 0.0	Oct 02- Sep 03 0.0	Oct 03- Sep 04 0.0	Oct 04- Sep 05 0.0	Oct 05- Sep 06 0.0	Oct 06- Sep 07 0.0	Oct 07- Sep 08 0.0	Oct 08- Sep 09 0.0	Oct 09- Sep 10 0.0			
	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5			
	19,562	0	0	0	0	0	0	0	0	0			
	19,562	19,562	19,562	19,562	19,562	19,562	19,562	19,562	19,562	19,562			
Resource:	MAT300	MATERIAL											
Res Dept:	Overtime:	EOC:: MAT											
		Class:											
Yr Units:	Oct 00- Sep 01 17,060.0	Oct 01- Sep 02 17,060.0	Oct 02- Sep 03 17,060.0	Oct 03- Sep 04 9,478.0	Oct 04- Sep 05 5,687.0	Oct 05- Sep 06 0.0	Oct 06- Sep 07 0.0	Oct 07- Sep 08 0.0	Oct 08- Sep 09 0.0	Oct 09- Sep 10 0.0			
	17,060.0	34,120.0	51,180.0	60,658.0	66,345.0	66,345.0	66,345.0	66,345.0	66,345.0	66,345.0			
	17,060	17,521	17,994	10,277	6,339	0	0	0	0	0			
	17,060	34,581	52,574	62,851	69,190	69,190	69,190	69,190	69,190	69,190			
Resource:	ODCTRL	TRAVEL RESOURCE											
Res Dept:	Overtime:	EOC:: ODC											
		Class:											
Yr Units:	Oct 00- Sep 01 5,875.0	Oct 01- Sep 02 5,875.0	Oct 02- Sep 03 5,875.0	Oct 03- Sep 04 3,264.0	Oct 04- Sep 05 1,958.0	Oct 05- Sep 06 0.0	Oct 06- Sep 07 0.0	Oct 07- Sep 08 0.0	Oct 08- Sep 09 0.0	Oct 09- Sep 10 0.0			
	5,875.0	11,750.0	17,625.0	20,889.0	22,847.0	22,847.0	22,847.0	22,847.0	22,847.0	22,847.0			
	5,875	6,034	6,197	3,539	2,182	0	0	0	0	0			
	5,875	11,909	18,105	21,644	23,827	23,827	23,827	23,827	23,827	23,827			
Resource:	PROMGR	PROGRAM MGR											
Res Dept:	Overtime:	EOC:: SAL											
		Class:											
Yr Hours:	Oct 00- Sep 01 4,356.0	Oct 01- Sep 02 5,241.0	Oct 02- Sep 03 5,241.0	Oct 03- Sep 04 3,494.0	Oct 04- Sep 05 1,747.0	Oct 05- Sep 06 0.0	Oct 06- Sep 07 0.0	Oct 07- Sep 08 0.0	Oct 08- Sep 09 0.0	Oct 09- Sep 10 0.0			
	4,356.0	9,597.0	14,838.0	18,332.0	20,079.0	20,079.0	20,079.0	20,079.0	20,079.0	20,079.0			
	409,508	518,613	549,315	387,802	205,395	0	0	0	0	0			
	409,508	928,120	1,477,435	1,865,237	2,070,632	2,070,632	2,070,632	2,070,632	2,070,632	2,070,632			
S:\EST_FORMS\Ncaak INCLUDES ESCALATION COSTS													

Resource:	QACENG	QA ENGINEER	LABOR											
Res Dept:		Overtime:	Class:											
			Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-			
			Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10			
Yr Hours:		6,377.0	5,241.0	5,241.0	5,241.0	5,241.0	0.0	0.0	0.0	0.0	0.0			
Cum Hours:		6,377.0	11,618.0	16,859.0	22,100.0	27,341.0	27,341.0	27,341.0	27,341.0	27,341.0	27,341.0			
Yr Total Cost:		293,087	253,542	268,551	284,385	301,243	0	0	0	0	0			
Cum Total Cost:		293,087	546,629	815,180	1,099,565	1,400,808	1,400,808	1,400,808	1,400,808	1,400,808	1,400,808			

Resource:	QACMGR	QA MANAGER	LABOR											
Res Dept:		Overtime:	Class:											
			Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-			
			Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10			
Yr Hours:		1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	0.0	0.0	0.0	0.0	0.0			
Cum Hours:		1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	8,440.0	8,440.0	8,440.0	8,440.0	8,440.0			
Yr Total Cost:		78,147	98,967	104,826	111,007	117,587	0	0	0	0	0			
Cum Total Cost:		78,147	177,114	281,940	392,947	510,534	510,534	510,534	510,534	510,534	510,534			

Resource:	TPSREP	TECH/PROG SUPT REP	LABOR											
Res Dept:		Overtime:	Class:											
			Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-			
			Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10			
Yr Hours:		2,904.0	1,747.0	1,747.0	1,747.0	1,270.0	0.0	0.0	0.0	0.0	0.0			
Cum Hours:		2,904.0	4,651.0	6,398.0	8,145.0	9,415.0	9,415.0	9,415.0	9,415.0	9,415.0	9,415.0			
Yr Total Cost:		150,892	95,547	101,203	107,170	82,527	0	0	0	0	0			
Cum Total Cost:		150,892	246,439	347,642	454,813	537,340	537,340	537,340	537,340	537,340	537,340			

Resource:	WSTENG	WASTE ENGINEER	LABOR											
Res Dept:		Overtime:	Class:											
			Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-			
			Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10			
Yr Hours:		1,452.0	1,747.0	1,747.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Cum Hours:		1,452.0	3,199.0	4,946.0	4,946.0	4,946.0	4,946.0	4,946.0	4,946.0	4,946.0	4,946.0			
Yr Total Cost:		74,096	93,837	99,392	0	0	0	0	0	0	0			
Cum Total Cost:		74,096	167,932	267,324	267,324	267,324	267,324	267,324	267,324	267,324	267,324			

GRAND TOTALS:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Cum Hours:	16,825.5	15,723.0	15,723.0	12,229.0	10,005.0	0.0	0.0	0.0	0.0	0.0
Yr Total Cost:	16,825.5	32,548.5	48,271.5	60,500.5	70,505.5	70,505.5	70,505.5	70,505.5	70,505.5	70,505.5
Cum Total Cost:	1,048,226	1,084,060	1,147,478	904,179	715,274	0	0	0	0	0
	1,048,226	2,132,286	3,279,764	4,183,943	4,899,217	4,899,217	4,899,217	4,899,217	4,899,217	4,899,217

CAM 5.9% Escalated for George Strait CONTROL TEAM Linda Wootte

SECTION 8

4.0 RISK PLAN

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WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 1
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE TIM POFF 648-5286	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAM	13. TASK DESCRIPTION (ONE LINE) ENVIRONMENTAL COMPLIANCE		
<div>14. ELEMENT TASK DESCRIPTION</div> <div style="margin-top: 20px;"> <p><u>a. ELEMENTS OF COST:</u></p> <p>Labor Materials Subcontracts ODCs</p> </div> <div style="margin-top: 20px;"> <p><u>b. TECHNICAL CONTENT:</u></p> <p>Environmental Compliance develops, coordinates, and maintains site-wide programs to ensure all FEMP activities are protective of the environment and in compliance with requirements specified in applicable environmental laws, regulations, rules, orders, legal agreements, and site permits. This work scope includes review and interpretation of regulatory requirements for applicability to FEMP activities, providing guidance to implementing organizations, performing surveillances, assessments, and audits of implementation, reviewing environmental performance measures, preparation of environmental compliance reports, maintenance of environmental records, and liaison with regulatory agency personnel and with DOE environmental protection personnel.</p> <p>The Environmental Compliance organization provides a number of centralized services to site organizations engaged in remediation activities. These services include: serving as the site support for project guidance on environmental compliance requirements; providing technical support to projects for environmental control equipment and systems such as HEPA filtration devices; preparation and submittal of permit applications and environmental reports; reviewing and evaluation of project activities for environmental ALARA objectives and permit requirements; providing project field support for control of fugitive emissions and asbestos control, air pollutant source modeling, chemical accountability and affirmative procurement program support.</p> </div>			
Project Manager <i>SG Humphreys</i> for George Sartrell	Control Account Manager <i>SG Humphreys</i> for George Sartrell	Control Team Manager <i>Linda Wroste</i>	

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE TIM POFF 648-5286	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAM	13. TASK DESCRIPTION (ONE LINE) ENVIRONMENTAL COMPLIANCE		

14. ELEMENT TASK DESCRIPTION

c. SCOPE OF WORK:

Management and Administration/Regulatory Policy/Integration

Provide management and administration of the Environmental Compliance Department. Maintain and implement an integrated Environmental Management System for the site.

Provide analysis and interpretation of legislation, regulations and legal agreements with the State of Ohio and U.S. EPA as they apply to the FEMP. Develop site specific regulatory policy, regulatory position papers and compliance guides as needed to disseminate that information to FEMP staff.

Review internal policies and procedures and submittals to regulatory agencies for adherence to established regulatory policies and environmental regulations.

Provide liaison and interface with state and county environmental regulatory agencies.

Provide interface with DOE environmental compliance staff. Provide site liaison between FEMP projects and Legal environmental staff members.

Maintain site-wide programmatic documentation for the Environmental Protection functional areas. Conduct FAM self-assessments annually.

Coordinate training program and maintain the Training and Qualifications Plan for Environmental Compliance personnel.

Provide and maintain a tracking system for legally enforceable environmental regulatory milestones.

Collect data, prepare and submit Consolidated Consent Agreement/FFCA/FFA and RI/FS monthly and quarterly progress report, Annual Chief Financial Officer's Report on the FFCA, annual Notice of Violation Status Report, and Radioactive Effluent Information System/Onsite Discharge Information System Report. Provide support to other organizations in the preparation and review of other

WORK SCOPE DEFINITION (Work Package)

Page 3

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE TIM POFF 648-5286	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAM	13. TASK DESCRIPTION (ONE LINE) ENVIRONMENTAL COMPLIANCE		

14. ELEMENT TASK DESCRIPTION

environmental reports.

Site Environmental Compliance Oversight

Provide oversight of proposed and on-going site activities to assure compliance with identified requirements; identification of deficiencies and vulnerabilities and coordination of corrective actions. Identify compliance requirements, such as permit documentation, monitoring and reporting requirements, emission and discharge limits, or emission control and monitoring requirements.

Ensure site-wide compliance with programmatic requirements by conducting oversight assessments and surveillances of the environmental compliance program and field implementation.

Support, prepare, and submit emission and discharge reports for compliance with permit and other requirements: identify noncompliances and submit reports to DOE and regulatory agencies.

Review environmental data and reports generated by the projects to assess environmental protection and compliance performance and trends, and to identify potential problems and appropriate response actions.

RCRA/CERCLA Compliance

Support the project groups in applying RCRA/CERCLA integration strategies agreed to by the DOE, EPA, and OEPA.

Conduct hazardous waste container inventory verification versus SWIFTS, collect data, prepare and submit RCRA Hazardous Waste Annual Report.

Coordinate necessary modifications to RCRA Part B Permit Application, and submit annual revisions.

Provide support to other organizations in the preparation and review of other RCRA driven reports such as the Hazardous Waste Site Treatment Plan.

In accordance with the 1996 DF&O, coordinate with projects and prepare and

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 4
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE TIM POFF 648-5286	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAM	13. TASK DESCRIPTION (ONE LINE) ENVIRONMENTAL COMPLIANCE		

14. ELEMENT TASK DESCRIPTION

submit to EPA the RCRA/CERCLA cross reference table updates as driven by remediation activities impacting HWMUs.

Conduct oversight surveillance of HWMUs, satellite accumulation areas, RCRA storage units, and waste operations for compliance with requirements. Provide support to Soil and Disposal Facility Project and to Demolition Projects regarding HWMU closure issues.

Provide oversight of RCRA waste characterization activities.

Maintain RCRA Operating Record as required by Federal and state regulations. Receive, review, and file all documents related to management of the hazardous/mixed waste inventory and remaining HWMUs.

Support implementation of free-release and off-site policies relating to debris, wastes, and materials generated during removal/remediation activities.

Air Compliance Programs

STRATOSPHERIC OZONE PROTECTION PROGRAM

Develop, maintain, and provide management for the SOP programs. Periodically inspect the Process Side and Clean Side storage areas for Ozone Depleting Substances (ODS), and evaluate the performance of workers who remove ODS from equipment. Ensure that radon emissions and radon activities (such as data collection, records, and report submittals) are in compliance with all appropriate regulations and DOE Orders. Review all FEMP policies and procedures involving radon and ODS, prior to issue; develop radon and ODS related site-wide policies; act as site-wide technical advisor for radon and ODS issues for CRUs, construction, and other Fluor Fernald Departments.

STACK TESTING PROGRAM

Develop specification for and oversee the independent third party stack testing procedures; evaluate testing results, and ensure any necessary corrective action is taken. Identify those stacks that require periodic testing, per NESHAP 40 CFR 61, Subpart H. Develop specifications for stack testing. Identify those companies capable of providing the stack testing services. Support bid process; aid in selection of lowest and best bid. Monitor the testing. Receive and

WORK SCOPE DEFINITION

(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 5
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE TIM POFF 648-5286	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAM	13. TASK DESCRIPTION (ONE LINE) ENVIRONMENTAL COMPLIANCE		

14. ELEMENT TASK DESCRIPTION

evaluate test results; take action for any problems noted.

STACK MONITORING PROGRAM

Design and oversee the installation of stack monitoring systems; evaluate Lab results, and take appropriate corrective actions as necessary. Ensure data collection and verification from stack monitors. Review all Work Plans that may involve stack monitoring; develop and ensure implementation of any relevant equipment and monitoring procedures. Review and coordinate new stack installations and modifications to present stacks.

PROJECT SUPPORT PROGRAM

Regulatory oversight of asbestos activities; support activities such as design, maintenance, and upgrades of air systems at the Laboratory, Laundry, D&D building, and other facilities; preparation of necessary applications; guidance on implementing permits, and compliance oversight. Support activities include design, maintenance, and upgrade of air systems for new projects; dispersion modeling emission estimate preparation of regulatory documentation, and other regulatory & technical support. Review all site Permits to Operate (PTOs) to ensure their relevancy accuracy, and implementation; coordinate the preparation of necessary applications, and providing guidance on implementing approved permits. Assist Project Engineers in developing air cleaning and stack monitoring systems, and implementing other CAA requirements provide air emission documentation from stack sampling systems. Prepare and submit the "Annual Progress Report on the Construction of Air Pollution Control Equipment" and the NESHA Annual report to the USEPA, Region V. Provide modeling and other CAA related support.

AIR FILTRATION DEVICE (AFD)

Testing and Repair Program - Certify the competence of the RSO AFD Team, and monitor their performance. Develop policies and procedures regarding fixed-in-place AFDs. Respond as site-wide technical advisor for HEPA and AFD issues for CRUs, RSO, Construction, and FLUOR departments. Develop policies and procedures regarding portable AFDs.

Project Guidance and Support

Provide guidance and assistance to projects to maintain and improve compliance

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 6
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE TIM POFF 648-5286	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAM	13. TASK DESCRIPTION (ONE LINE) ENVIRONMENTAL COMPLIANCE		

14. ELEMENT TASK DESCRIPTION

with environmental requirements.

Review sources of environmental regulatory drivers for proposed and final rule changes, agency/industry trends, guidance, and case histories. Sources include daily review of the Code of Federal Regulations, abstract services, Federal and state agency announcements. Regulatory changes are assessed for potential impact on the FEMP and update advisories provided to the affected project areas.

Track new or revised regulations, rules, orders, legal agreements and guidance; maintain a system to assure that they are reviewed by the appropriate organization for potential impacts and adequately reflected in procedures or other implementing documents.

Provide identification and analysis of potential ARARs and TBCs and guidance in planning integration into response actions by the projects.

Manage the Environmental ALARA program as part of the site ALARA Program. Perform evaluations of the potential impacts of environmental releases of radionuclides from proposed projects and activities, and maintain Environmental ALARA files.

Provide guidance, support, and oversight for compliance with the Affirmative Procurement Program as required by RCRA 6002. Coordinate activities with Procurement and the Waste Minimization/Pollution Prevention project.

Provide guidance, management support, and oversight for the Chemical Management Program for the proper procurement, tracking, use, and disposal of chemicals on site.

d. WORK SPECIFICALLY EXCLUDED:

The Air Compliance Section, currently funded under Cost Account 3FCS3 (PBS-01), will be aligned budget-wise, as it now is organizationally and functionally, with the rest of the Environmental Compliance organization under Cost Account NCAAM, within the Safety and Health Division (PBS-12) beginning in FY2002.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE

FEMP (DEFENSE)

2. DATE

12/01/2000

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3. WBS ELEMENT CODE

1.1.N.C

4. WBS ELEMENT TITLE/NAME

SAFETY & HEALTH

5. PERFORMING DIV/DEPARTMENT CODE

41

6. ORIGINATOR NAME/PHONE

TIM POFF 648-5286

7. WBS ELEMENT MANAGER

DANNY WHITAKER-SHEPPARD

8. BUDGET AND REPORTING NUMBER

EW05H3120

9. BUDGET TITLE

PROGRAM SUPPORT & OVERSIGHT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?

NEW PER CP# FY01-0115-0012-00

11. ESTIMATED START / COMPLETION DATE

12/01/00 - 12/27/09

12. TASK IDENTIFICATION (WORK PACKAGE)

NCAAM

13. TASK DESCRIPTION (ONE LINE)

ENVIRONMENTAL COMPLIANCE

14. ELEMENT TASK DESCRIPTION

SECTION 9

1.0 NARRATIVE

1. PROJECT TITLE: PROGRAM SUPPORT AND OVERSIGHT	2. DATE: 09/10/01	3. PBS#: 12
4. WBS ELEMENT CODE: 1.1.N.C	5. WBS ELEMENT TITLE: ENVIRONMENT, SAFETY, HEALTH & QUALITY	
6. CAM NAME/ PHONE: GEORGE GARTRELL	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: NCAA	

PART 3: ENVIRONMENT, SAFETY, HEALTH & QUALITY (NCAA)

Section 9 Environmental Compliance (NCAAM)

1.0 NARRATIVE

1.1 OVERVIEW:

Environmental Compliance develops, coordinates, and maintains site-wide programs to ensure all FEMP activities are protective of the environment and in compliance with requirements specified in applicable environmental laws, regulations, rules, orders, legal agreements, and site permits. This work scope includes review and interpretation of regulatory requirements for applicability to FEMP activities, providing guidance to implementing organizations, performing surveillances, assessments, and audits of implementation, reviewing environmental performance measures, preparation of environmental compliance reports, maintenance of environmental records, and liaison with regulatory agency personnel and with DOE environmental protection personnel.

The Environmental Compliance organization provides a number of centralized services to site organizations engaged in remediation activities. These services include: serving as the site support for project guidance on environmental compliance requirements; providing technical support to projects for environmental control equipment and systems such as HEPA filtration devices; preparation and submittal of permit applications and environmental reports; reviewing and evaluation of project activities for environmental ALARA objectives and permit requirements; providing project field support for control of fugitive emissions and asbestos control, air pollutant source modeling, chemical accountability and affirmative procurement program support.

1.2 ASSUMPTIONS/EXCLUSIONS:

1.2.1 Assumptions

1. The Air Compliance Section, currently funded under Cost Account AFCS3, will be aligned budget-wise, as it now is organizationally and functionally, with the rest of the Environmental Compliance organization under Cost Account 1NC09, within the ESH&Q Division beginning in FY 2002.

2. Environmental compliance will remain an independent oversight function at the FEMP for the duration of the contract.
3. Environmental compliance at the FEMP is driven by the following contractual requirements:
 - The Amended Consent Agreement, Amended Consent Decree, Director's Findings & Orders, and other existing agreements will continue to be the controlling environmental regulatory agreements with U.S.EPA and OEPA for remedial activities through the remainder of the FEMP project.
 - The principal controlling environmental regulations (Federal and state), as identified within contract # DE-AC24-01OH20115 and the S/RID for protection of air, water and management of waste, will remain in force and not significantly change during the duration of the FEMP project.
 - CERCLA will remain the primary environmental regulation under which the remediation of the FEMP will be completed. An integrated approach for compliance with CERCLA and other environmental regulations will be followed, as with the integration of RCRA and CERCLA per the 1996 Director's Findings and Orders.
 - The DOE orders included in Contract # DE-AC24-01OH20115 will continue to be in effect and will not change significantly during the duration of the FEMP project.
4. Site activities will continue to be performed in accordance with programmatic site-wide requirements specified in the Environmental Protection and Environmental Restoration and Waste Management Functional Areas.
5. Fluor Fernald will assume principal responsibility for preparation, signing, certification, and submittal of all environmental permits, applications, reports, and other submittals to U.S. EPA and OEPA, as specified in Section H.27 of the contract, unless otherwise directed by DOE.
6. Manpower Loading Estimates are based on 40-hour workweek; 52 weeks per fiscal year.
7. Estimates for reports, permits, and other contractual deliverables are based on regulatory requirements; estimates for support/oversight related activities are based on the current level of effort anticipated to support project work plans.
8. Training Costs, Travel Costs, Subcontract support, Materials and Supplies, and taxes are included.
9. In the 3rd quarter of FY06, the program maintenance and oversight functions of Environmental Compliance, Occupational Safety & Health, Integrated Safety Management, and Radiological Control will be consolidated into a single ES&H oversight organization and assigned to the Site Manager which is anticipated to be the one of the project managers. This organization will continue to be responsible for site-wide programs in these disciplines, even though it will be located in a project organization, rather than a separate programmatic organization. The manpower required by this organization is being entered on the Environmental Compliance, Occupational Safety & Health, Integrated Safety Management, and Radiological Control manpower

sheets, however, to ensure that the manpower requirement for this scope is captured in the baseline effort.

10. In keeping with the consolidation of program maintenance and oversight functions of the Environmental Compliance, Occupational Safety & Health, Safety Analysis, Integrated Safety Management and Radiological Control functions, certain assumptions have been made. The functions to be consolidated have certain general functions in common such as:

- Program Documentation
- Record keeping/Reporting (RCRA, OSHA, Workman's Comp,
- Radiation Exposures, Chemical Exposures)
- Independent Assessment and Oversight
- Permitting
- Event Investigation
- PAAA Evaluation (Rad, SA)
- Compliance Training/Qualifications

It is assumed that as projects are completed and the population decreases, the documentation system is also streamlined requiring fewer resources to maintain. The volume of procedures, manuals and plans that currently define each program will be significantly reduced. Similarly, as the population of workers decreases, the record keeping and reporting level of effort is assumed to be reduced proportionately.

11. Independent Assessment and programmatic oversight responsibilities are proportionate to the number and activities of each project. The consolidation of ES&H functions will allow a smaller number of people, working together to accomplish the desired level of effort and independence.
12. Permitting, event investigation and training/qualifications are functions which each group currently performs, that with a consolidated organization can be accomplished by a smaller number of people covering all the ES&H functions.

1.2.2 Exclusions

1. Project-specific/project-funded environmental protection/compliance activities are excluded.
2. Environmental monitoring, sampling, and analyses activities are excluded, but review, assessment, modeling, and tracking environmental data and trends are included.
3. SARA reporting of chemical inventories and releases is excluded, but review of SARA data collection and reporting is included.
4. Emission, effluent, and waste treatment activities are excluded, but review is included.
5. Direct field support activities, such as monitoring fugitive dust emissions for BAT compliance, are chargeable to the projects and are excluded.

1.2.3 Government Furnished Equipment Services

None

1.3 DRIVERS:

1. The drivers for the RCRA hazardous waste compliance program are, a) closure of the 20 remaining hazardous waste management units (HWMUs), b) the management and disposition of an inventory of approximately 2200 containers of hazardous/mixed waste requiring management and disposal per regulations, and c) the management of the continuing generation of hazardous/mixed waste (at 32 RCRA satellite accumulation areas).
2. The driver for the TSCA compliance program is the management of the inventory of PCB containing wastes.
3. The driver for the Low Level Radioactive Waste (LLW) compliance program is the management and disposition of approximately 29,000 containers of stored LLW, and the compliance requirements of the continual generation of LLW as a result of remediation activities throughout the remainder of the FEMP project.
4. The drivers for the air compliance programs are the various activities associated with management of onsite waste, demolition, excavation, or construction which may constitute point sources or sources of fugitive emissions of air pollutants including radionuclides, asbestos, and ozone-depleting substances.
5. These same activities (waste management, demolition, excavation, construction) may also be sources of surface water or groundwater contamination, wastewater, or storm water runoff, which are drivers for the water compliance program.
6. The Affirmative Procurement, Waste Minimization/Pollution Prevention Programs and Chemical Management Program are driven by the need to procure and use environmentally friendly products, to minimize the environmental impacts of site activities, and to manage the proper use and disposition of chemicals and other materials on the site in support of the various remediation, maintenance, and administrative activities.

1.4 Scope of Work:

1.4.1 Task #1 - Management and Administration/Regulatory Policy/Integration

The scope of work provided by Management and Administration/Regulatory Policy/Integration in FY01 involves the following:

1. Provide management and administration of the Environmental Compliance Department. Maintain and implement an integrated Environmental Management System for the site. Participate as a member of the ALARA

Committee, the Technical Review Board, EOC Release Evaluator, and Subject Technical Expert supporting the Environmental Protection Functional Area Manager (FA #5).

2. Develop site specific regulatory policy, regulatory position papers and compliance guides as needed to disseminate that information to FEMP staff.
3. Review internal policies and procedures and submittals to regulatory agencies for adherence to established regulatory policies and environmental regulations.
4. Provide liaison and interface with state and county environmental regulatory agencies. This includes frequent updates; periodic site visits and inspections; submittal of reports, permit revisions, and other documents; self-reporting of non-compliances, exceedances, and spills and releases which exceed reportable quantities.
5. Provide interface with DOE environmental compliance staff. Provide site liaison between FEMP projects and Legal environmental staff members.
6. Maintain site-wide programmatic documentation for the Environmental Protection functional area. This includes maintenance of 12 functional area procedures, Requirements Manuals, and Plans in the Environmental Protection functional area. **Eleven** of these documents are reviewed and revised on an annual basis (for those determined to be Technical Operationally Significant or "Emergency"), one on a biennial basis (for those which are non-OS), and one on a triennial basis (classified administrative). Maintain S/RID for Environmental Protection Functional Area. Conduct FAM self-assessments annually.
7. Coordinate training program and maintain the Training and Qualifications Plan for Environmental Compliance personnel.
8. Provide and maintain a tracking system for legally enforceable environmental regulatory milestones.
9. Collect data, prepare and submit Consolidated Consent Agreement/FFCA/FFA and RI/FS monthly and quarterly progress report, Annual Chief Financial Officer's Report on the FFCA, annual Notice of Violation Status Report, and Radioactive Effluent Information System/Onsite Discharge Information System Report. Provide support to other organizations in the preparation and review of other environmental reports (Annual Site Environmental Report, SARA 312 & 313 Annual Reports, and PCB Annual Document Log).
10. Provide analysis and interpretation of legislation, regulations and legal agreements with the State of Ohio and U.S. EPA as they apply to the FEMP.

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At recent levels of activity the manpower requirement is:

Environmental Compliance Manager:	540 hrs/yr
Environmental Protection Rep.:	2000 hrs/yr
Information Records Rep.:	540 hrs/yr
Clerk:	900 hrs/yr

The plan for performing the Management and Administration/Regulatory Policy/Integration scope is to continue the above services until modified as follows:

Although liaison and contact with regulatory agency personnel and DOE environmental counterparts is expected to require increased levels of resources as a result of facility closures, accelerated/changed schedules, and increased scrutiny during the remaining contract period, this will be offset by increased efficiencies in tracking and reporting and greater maturity of projects, as reflected in reductions in Environmental Compliance personnel in FY04, **FY02** FY06, and FY07.

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The quantification for Management and Administration/Regulatory Policy/Integration scope is based on site activities, projects, waste inventories, and project compliance milestones. The resource requirements for this and the correlation with site/project activities is shown in the following table:

		01	02	03	04	05	06	07	08	09	10
Active Projects	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Site Comp.
	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Site Comp.
	D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D			Site Comp.
	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP					Site Comp.
	WGS	WGS(LLW) WGS(MW)	WGS(LLW) WGS(MW)	WGS(LLW) WGS(MW)	WGS(LLW)	WGS(LLW)					Site Comp.
	NMD	NMD	NMD								Site Comp.
	SCEP	SCEP				SCEP	SCEP	SCEP	SCEP	SCEP	Site Comp.
	OSDF	OSDF				OSDF	OSDF	OSDF	OSDF	OSDF	Site Comp.
FTEs	Manager	.3	.3	.3	.3	.3	.3	0	0	0	0
	Environmental Protection Representative	1.0	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0
	Information Records Representative	.5	0	0	0	0	0	0	0	0	0
	Clerk	.3	0	0	0	0	0	0	0	0	0
\$	Materials	9250	9750	9750	11,250	6540	6300	5620	3620	3620	620
	ODC	2700	14,680	14,680	12,130	11,910	11,910	6370	6370	4570	2020

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1.4.2. Task #2 - Site Environmental Compliance Oversight

The scope of work provided by Site Environmental Compliance Oversight in FY01 includes the following scope:

1. Provide oversight of proposed and on-going site activities to assure compliance with identified requirements; identification of deficiencies and vulnerabilities and coordination of corrective actions. Identify compliance requirements, such as permit documentation, monitoring and reporting requirements, emission and discharge limits, or emission control and monitoring requirements.
2. Ensure site-wide compliance with programmatic requirements by conducting oversight assessments and surveillances of the environmental compliance program and field implementation. Areas covered by surveillances/assessments/audits include waste inventories and management operations, air pollutant emission sources, stormwater controls, HWMUs, satellite accumulation areas, asbestos, and soil piles. The assessment/surveillance program audits ½ of the functional elements of the S/RID each year on a rotating basis. Field assessments are conducted to ensure that projects are conducting work in compliance with environmental regulatory requirements and permit conditions.
3. Support, prepare, and submit emission and discharge reports for compliance with permit and other requirements: identify noncompliances and submit reports to DOE and regulatory agencies.
4. Review environmental data and reports generated by the projects to assess environmental protection and compliance performance and trends, and to identify potential problems and appropriate response actions. Documents reviewed include the Annual Site Environmental Report and Quarterly Status Reports, monthly NPDES effluent reports, radon monitoring reports, release reports, annual SARA 312 and 313 reports.

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At recent levels of activity the manpower requirement is:

Environmental Compliance Manager:	360 hrs/yr
Environmental Protection Rep.:	1800 hrs/yr
Clerk:	360 hrs/yr

The plan for performing the above Site Environmental Compliance Oversight scope is to continue the above services until services are modified as follows:

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1. The Compliance Oversight function will remain staffed at current levels ~~2.0 FTE until FY07~~ **2.0** when the 2nd quarter of FY05, when a reduction of .3 FTE will be realized as a result of the impending completion of WPRAP and Low Level Waste activities.
2. ~~± this~~ function will be consolidated within the Management and Administration function beginning in FY070.

The quantification for Site Environmental Compliance Oversight is based on site activities, projects, waste inventories, and project compliance milestones. The resource requirements for this and the correlation with site/project activities is shown in the following table:

		01	02	03	04	05	06	07	08	09	10
Active Projects	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Site Comp.
	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Site Comp.
	D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D			Site Comp.
	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP					Site Comp.
	WGS	WGS(LLW) WGS(MW)	WGS(LLW) WGS(MW)	WGS(LLW) WGS(MW)	WGS(LLW)	WGS(LLW)					Site Comp.
	NMD	NMD	NMD								Site Comp.
	SCEP	SCEP				SCEP	SCEP	SCEP	SCEP	SCEP	Site Comp.
	OSDF	OSDF				OSDF	OSDF	OSDF	OSDF	OSDF	Site Comp.
FTEs	Manager	.2	.2	.2	.2	.2	.2	0	0	0	0
	Environmental Protection Representative	1.0	1.8	1.8	1.8	1.8	1.8	0	0	0	0
	Clerk	.2	0	0	0	0	0	0	0	0	0
\$	Materials	800	1300	1300	3100	1300	1100	0	0	0	0
	ODC	0	5540	5540	5540	5540	3000	0	0	0	0

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1.4.3 Task # 3 - RCRA/CERCLA Compliance

The scope of work provided by RCRA/CERCLA Compliance involves the following scope:

1. Support the project groups in applying RCRA/CERCLA integration strategies agreed to by the DOE, EPA, and OEPA. This includes RCRA closures, groundwater monitoring activities, aqueous waste management, and Project Management Training.
2. Conduct hazardous waste container inventory verification versus SWIFTS, collect data, prepare and submit RCRA Hazardous Waste Annual Report.
3. Coordinate necessary modifications to RCRA Part B Permit Application, and submit annual revisions.
4. Provide support to other organizations in the preparation and review of other RCRA driven reports such as the Hazardous Waste Site Treatment Plan.

5. In accordance with the 1996 DF&O, coordinate with projects and prepare and submit to EPA the RCRA/CERCLA cross reference table updates as driven by remediation activities impacting HWMUs.
6. Conduct oversight surveillance of HWMUs, satellite accumulation areas, RCRA storage units, and waste operations for compliance with requirements.
7. Provide support to Soil and Disposal Facility Project and to Demolition Projects regarding HWMU closure issues.
8. Provide oversight of RCRA waste characterization activities.
9. Maintain RCRA Operating Record as required by Federal and state regulations. Receive, review, and file all documents related to management of the hazardous/mixed waste inventory and remaining HWMUs. Records include daily, weekly, and monthly inspection logs, shipping manifests, closure plans, letters, and reports. The OR must be maintained at the site until the HWMUs are closed and the hazardous/mixed waste inventories are disposed.
10. Support implementation of free-release and off-site policies relating to debris, wastes, and materials generated during removal/remediation activities.

At recent levels of activity the manpower requirement is:

Environmental Compliance Manager:	360 hrs/yr
Environmental Protection Rep.:	1090 hrs/yr
Information Records Rep.:	360 hrs/yr
Clerk:	360 hrs/yr

The plan for performing the above RCRA/CERCLA Compliance scope is to continue the above services until services are modified as follows:

Although liaison and contact with regulatory agency personnel and DOE environmental counterparts is expected to require increased levels of resources as a result of integrated RCRA/CERCLA facility closures, accelerated/changed schedules, and increased scrutiny during the remaining contract period, this will be offset by reductions in the hazardous waste inventory in FY04 and in the closure of HWMUs. Other elements of this task are determined by the level of site activity and associated waste generation and management issues.

The quantification for RCRA/CERCLA Compliance scope is based on the disposition schedules for mixed and low level waste, HWMU closures, and other site projects as generators of waste. The resource requirements for this and the correlation with site manpower is shown in the following table:

		01	02	03	04	05	06	07	08	09	10
Active Projects	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Site Comp.
	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Site Comp.
	D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D			Site Comp.
	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP					Site Comp.
	WGS	WGS(LLW) WGS(MW)	WGS(LLW) WGS(MW)	WGS(LLW) WGS(MW)	WGS(LLW)	WGS(LLW)					Site Comp.
	NMD	NMD	NMD								Site Comp.
	SCEP	SCEP				SCEP	SCEP	SCEP	SCEP	SCEP	Site Comp.
	OSDF	OSDF				OSDF	OSDF	OSDF	OSDF	OSDF	Site Comp.
FTEs	Manager	.2	.2	.2	.2	.2	.2	0	0	0	0
	Environmental Protection Representative	.6	.8	.8	.8	.8	.8	0	0	0	0
	Information Records Representative	.2	.0	.0	.0	0	0	0	0	0	0
	Clerk	.2	.0	.0	0	0	0	0	0	0	0
\$	Materials	740	740	740	2430	500	500	0	0	0	0
	ODC	0	2770	2770	2770	2770	2770	0	0	0	0

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1.4.4 Task # 4 - Air Compliance Programs

The scope of work provided by Air Compliance Program includes the following scope:

The Air Compliance Clean Air Program provides support to FEMP activities to ensure that applicable requirements of the Clean Air Act, and related DOE Orders are identified and implemented. This activity includes review of proposed projects or ongoing activities to identify requirements imposed by the Clean Air Act regulations, coordination of programs to facilitate implementation, and support to verify compliance. This scope currently is covered under charge number AFCS3 within PBS-01, but will be transferred to Environmental Compliance (1NC09) beginning FY02-Q1.

Subtasks and associated activities within the Air Compliance Program include:

1. **STRATOSPHERIC OZONE PROTECTION PROGRAM**
 - Develop, maintain, and provide management for the SOP programs. Periodically inspect the Process Side and Clean Side storage areas for Ozone Depleting Substances (ODS), and evaluate the performance of workers who remove ODS from equipment.
 - Ensure that radon emissions and radon activities (such as data collection, records, and report submittals) are in compliance with all appropriate regulations and DOE Orders. Review all FEMP policies and procedures involving radon and ODS, prior to issue; develop radon and ODS related site-wide policies; act as site-wide technical advisor for radon and ODS issues for CRUs, construction, and other Fluor Fernald Departments.
2. **STACK TESTING PROGRAM**
 - Develop specification for and oversee the independent third party stack testing procedures; evaluate testing results, and ensure any necessary corrective action is taken.
 - Identify those stacks that require periodic testing, per NESHAP 40 CFR 61, Subpart H. Develop specifications for stack testing. Identify those companies capable of providing the stack testing services. Support bid process; aid in selection of lowest and best bid. Monitor the testing. Receive and evaluate test results; take action for any problems noted.
3. **STACK MONITORING PROGRAM**
 - Design and oversee the installation of stack monitoring systems; evaluate Lab results, and take appropriate corrective actions as necessary.
 - Ensure data collection and verification from stack monitors.
 - Review all Work Plans that may involve stack monitoring; develop and ensure implementation of any relevant equipment and monitoring procedures.
 - Review and coordinate new stack installations, and modifications to present stacks.
4. **PROJECT SUPPORT PROGRAM:**
 - Regulatory oversight of asbestos activities; support activities such as design, maintenance, and upgrades of air systems at the Laboratory, Laundry, D&D building, and other facilities; preparation of necessary applications; guidance on implementing permits, and compliance oversight.
 - Support activities include design, maintenance, and upgrade of air systems for new projects; dispersion modeling emission estimate preparation of regulatory documentation, and other regulatory & technical support.
 - Review all site Permits to Operate (PTOs) to ensure their relevancy accuracy, and implementation; coordinate the preparation of necessary applications, and providing guidance on implementing approved permits.
 - Assist Project Engineers in developing air cleaning and stack monitoring systems, and implementing other CAA requirements provide air emission documentation from stack sampling systems. Prepare and submit the "Annual Progress Report on the Construction of Air Pollution Control

Equipment" and the NESHAP Annual report to the USEPA, Region V.
Provide modeling and other CAA related support.

5. AIR FILTRATION DEVICE (AFD):

- Testing and Repair Program – Certify the competence of the RSO AFD Team, and monitor their performance.
- Develop policies and procedures regarding fixed-in-place AFDs.
- Respond as site-wide technical advisor for HEPA and AFD issues for CRUs, RSO, Construction, and FLUOR departments.
- Develop policies and procedures regarding portable AFDs.

At recent levels of activity the manpower requirement is:

Environmental Compliance Manager:	180 hrs/yr
Environmental Protection Rep.:	(currently under PBS-01)
Clerk:	360 hrs/yr

The plan for performing the above Air Compliance Program scope is to continue the above services until services are modified as follows:

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Air Compliance personnel will be reduced as a result of the continuing elimination of permitted and monitored air pollution sources during remediation. A reduction of 1 FTEs will occur between FY05 and FY07. After FY06 this function will be consolidated within the Management and Administration function.

The quantification for Air Compliance Program is based on site projects and activities with requirements for control of potential air pollutants. The resource requirements for this and the correlation with site manpower is shown in the following table:

		01	02	03	04	05	06	07	08	09	10
Active Projects	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Site Comp.
	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Site Comp.
	D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D			Site Comp.
	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP					Site Comp.
	WGS	WGS(LLW) WGS(MW)	WGS(LLW) WGS(MW)	WGS(LLW) WGS(MW)	WGS(LLW)	WGS(LLW)					Site Comp.
	NMD	NMD	NMD								Site Comp.
	SCEP	SCEP				SCEP	SCEP	SCEP	SCEP	SCEP	Site Comp.
	OSDF	OSDF				OSDF	OSDF	OSDF	OSDF	OSDF	Site Comp.
FTEs	Manager	.1	.1	.1	.1	.1	.1	0	0	0	0
	Environmental Protection Representative	0	.9	.9	.9	.9	.5	0	0	0	0
	Clerk	.2	.0	.0	.0	0	0	0	0	0	0
\$	Materials	185	1300	1300	1000	555	370	0	0	0	0
	ODC		7690	7690	4270	4270	3750	1000	1000	0	0

F-12-056

1.4.5 Task #5 - Project Guidance and Support

The scope of work provided by Project Guidance and Support in FY01 includes the following scope:

1. Provide guidance and assistance to projects to maintain and improve compliance with environmental requirements.
2. Review sources of environmental regulatory drivers for proposed and final rule changes, agency/industry trends, guidance, and case histories. Sources include daily review of the Code of Federal Regulations, abstract services, Federal and state agency announcements. As a cost saving measure, most searches are conducted via internet/web sites. Regulatory changes are assessed for potential impact on the FEMP and update advisories provided to the affected project areas. Publish periodic Federal Register Highlights and other communication tools. Track new or revised regulations, rules, orders, legal agreements and guidance; maintain a system to assure that they are reviewed by the appropriate organization for potential impacts and adequately reflected in procedures or other implementing documents. In addition, information from searches outside the Environmental Protection functional area is distributed to personnel in other functional areas.

3. Provide identification and analysis of potential ARARs and TBCs and guidance in planning integration into response actions by the projects.
4. Manage the Environmental ALARA program as part of the site ALARA Program. Perform evaluations of the potential impacts of environmental releases of radionuclides from proposed projects and activities, and maintain Environmental ALARA files.
5. Provide guidance, support, and oversight for compliance with the Affirmative Procurement Program as required by RCRA 6002. Coordinate activities with Procurement and the Waste Minimization/Pollution Prevention project.
6. Provide guidance, management support, and oversight for the Chemical Management Program for the proper procurement, tracking, use, and disposal of chemicals on site.
7. Develop and support implementation of construction contractor waste management and spill response plans.
8. Provide guidance to site regarding post-ROD CERCLA requirements such as the Five-Year Review, closure requirements, and when and how to remove the site from the NPL.

At recent levels of activity the manpower requirement is:

Environmental Compliance Manager:	360 hrs/yr
Environmental Protection Rep.:	2540 hrs/yr
Information Records Rep.:	180 hrs/yr
Clerk:	540 hrs/yr

The plan for performing the above Project Guidance and Support scope is to continue the above services until services are modified as follows:

F-12-
042

Project Guidance and Support FTE will be reduced as projects mature and reach completion. A reduction of ~~1.2 FTE~~ will occur from ~~FY02~~ through FY06, and after FY06 this function will be consolidated within the Management and Administration function.

The quantification for Project Guidance and Support scope is based on site activities, projects, waste inventories, and project compliance milestones. The resource requirements for this and the correlation with site/project activities is shown in the following table:

PBS-12, PROGRAM SUPPORT AND OVERSIGHT
 CLOSURE PLAN BASIS OF ESTIMATE
 2500-PL-0011, Revision 1
 September 2001

		01	02	03	04	05	06	07	08	09	10
Active Projects	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Silos	Site Comp.
	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Site Comp.
	D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D			Site Comp.
	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP					Site Comp.
	WGS	WGS(LLW) WGS(MW)	WGS(LLW) WGS(MW)	WGS(LLW) WGS(MW)	WGS(LLW)	WGS(LLW)					Site Comp.
	NMD	NMD	NMD								Site Comp.
	SCEP	SCEP				SCEP	SCEP	SCEP	SCEP	SCEP	Site Comp.
	OSDF	OSDF				OSDF	OSDF	OSDF	OSDF	OSDF	Site Comp.
FTEs	Manager	.2	.2	.2	.2	.2	.2	0	0	0	0
	Environmental Protection Representative	1.4	1	1	1	4	4	0	0	0	0
	Information Records Representative	.3	0	0	0	0	0	0	0	0	0
	Clerk	.1	.1	0	0	0	0	0	0	0	0
\$	Materials	1250	1200	1200	2800	300	300	0	0	0	0
	ODC	2770	2770	2770	2770	2770	3500	0	0	0	0

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SECTION 9

2.0 MANPOWER PLANS

DRIVERS		START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
201	D&D Summary	10/02/2000	03/30/2007		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
301	OSDF Summary Schedule	04/01/2004	12/23/2009																										
411	AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
502	WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
601	Soils Excavation Project Summary	10/01/2003	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
704	Silos AWR Summary	10/02/2000	10/23/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
710	Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
801	Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
1001	Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
1101	Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Project Management		Program Mgr.		22.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
Administration		Clerks		4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Information Management		Information Records Rep.		4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental		Environmental Protection Rep.		144.60	4	4	4	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5.4	5.4	5	5	5
Sheet Totals:				174.60	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	6.40	6.40	6.40	6.40	5.00	5.00	5.00	5.00

MPS #	1NC09	ENVIRONMENTAL COMPLIANCE

[illegible]

SECTION 9

3.0 ESTIMATE

NCAAM

ENVIROMENTAL COMPLIANCE

DATE: 10-Sep-01

PROJECT MGR: TIM POFF
CAM: DANNY WHITAKER-SHEPPARD
PREPARED BY: TRACY BRAUN
FISCAL YEAR: FY01 - FY10

[illegible][illegible][illegible]

Resource:	MAT300	MATERIAL OBJCLASS300	EOC:			MATERIAL						
Res Dept:		Overtime:	Class:			MAT						
			Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	
r Units:		12,225.0	14,290.0	14,290.0	20,580.0	9,105.0	8,570.0	5,620.0	3,620.0	3,620.0	620.0	
um Units:		12,225.0	26,515.0	40,805.0	61,385.0	70,490.0	79,060.0	84,680.0	88,300.0	91,920.0	92,540.0	
r Total Cost:		12,225	14,676	15,072	22,314	10,149	9,829	6,633	4,396	4,524	797	
um Total Cost:		12,225	26,901	41,973	64,287	74,436	84,265	90,898	95,294	99,818	100,615	

INCLUDES ESCALATION COSTS

Resource:	PROMGR	PROGRAM MGR	Class:		EOC:	LABOR					
Res Dept:		Overtime:			SAL						
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Yr. Hours:		1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	829.0	0.0	0.0	0.0	0.0
Cum Hours:		1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	9,269.0	9,269.0	9,269.0	9,269.0	9,269.0
Yr. Total Cost:		136,503	172,871	183,105	193,901	205,395	104,131	0	0	0	0
Cum Total Cost:		136,503	309,373	492,478	686,379	891,774	995,906	995,906	995,906	995,906	995,906

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
rr Hours:	10,164.0	12,229.0	12,229.0	12,229.0	11,674.0	9,895.6	1,747.0	1,747.0	1,747.0	387.0
Sum Hours:	10,164.0	22,393.0	34,622.0	46,851.0	58,525.0	68,420.6	70,167.6	71,914.6	73,661.6	74,048.6
rr Total Cost:	512,740	755,242	798,374	844,234	846,062	728,159	137,656	142,278	153,514	36,112
Sum Total Cost:	512,740	1,267,982	2,066,356	2,910,590	3,756,652	4,484,810	4,622,466	4,764,744	4,918,257	4,954,370

INCLUDES ESCALATION COSTS

SECTION 9

4.0 RISK PLAN

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WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 1
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE GEORGE GARTRELL 648-3996	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAL	13. TASK DESCRIPTION (ONE LINE) ESH&Q ADMINISTRATION		

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subs
ODCs

b. TECHNICAL CONTENT:

All DOE Orders relating to ESH&Q, Security, MC&A, and Emergency Services
Project staffing levels
Number of active projects
Leadership Team initiatives

Environment, Safety, Health & Quality (ESH&Q), provides management, administrative and oversight support to Fluor Fernald's fully integrated project organizations. The group's primary task it to ensure a safe and healthful working environment for employees and compliance with DOE requirements.

c. SCOPE OF WORK:

Responsible for ESH&Q program oversight of the FEMP.

Provides direction and policy framework to ensure that activities at the FEMP are performed in a consistent and safe manner in accordance with the prime contract, all applicable laws, regulations, and DOE orders.

The ESH&Q division provides direction to all other divisions for matters regarding Environment Compliance, Safety & Health, (including Radiological), Emergency Services, Security & Access, Quality Assurance, and Material Control &

Project Manager <i>SP Whittaker</i> for George Gartrell	Control Account Manager <i>SP Whittaker</i> for George Gartrell	Control Team Manager <i>Linda Whittaker</i>
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WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE GEORGE GARTRELL 648-3996	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAL	13. TASK DESCRIPTION (ONE LINE) ESH&Q ADMINISTRATION		

14. ELEMENT TASK DESCRIPTION

Accountability.

Activities are monitored to ensure compatibility with commitments made to the DOE, EPA, and the State of Ohio.

Provides consistent programmatic direction to the fully integrated project organizations that are performing remediation activities to clean up the facility.

Responsible for coordination and interface with the ISRC who support the Leadership Team by reviewing key safety program performance.

d. WORK SPECIFICALLY EXCLUDED:

None.

SECTION 10

1.0 NARRATIVE

1. PROJECT TITLE: PROGRAM SUPPORT AND OVERSIGHT	2. DATE: 09/10/01	3. PBS#: 12
4. WBS ELEMENT CODE: 1.1.N.C	5. WBS ELEMENT TITLE: ENVIRONMENT, SAFETY, HEALTH & QUALITY	
6. CAM NAME/ PHONE: GEORGE GARTRELL	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: NCAA	

PART 3: ENVIRONMENT, SAFETY, HEALTH AND QUALITY (NCAA)

Section 10: ESH&Q Administration (NCAAL)

1.0 NARRATIVE

1.1 OVERVIEW

Environment, Safety, Health & Quality (ESH&Q), provides management, administrative and oversight support to Fluor Fernald's fully integrated project organizations. The organization's primary task is to ensure a safe working environment for employees while maintaining compliance with the oversight requirements of the closure contract.

1.2 ASSUMPTIONS/ EXCLUSIONS

1.2.1 Assumptions

1. The ESH&Q management will need to exist with the same work scope as in FY01 through 1st quarter FY10.
2. Estimate is based on level of effort to support site.
3. The scope within the ESH&Q exists due to requirements from:
 - Fluor Fernald Prime Contract
 - DOE Orders
 - OSHA
 - US/Ohio EPA
4. Site specific health and safety requirements including Fluor Fernald regulations and compliance with 29 CFR 1910 & 26, and 10 CFR 835, will remain in place.
5. All ESH&Q personnel will be expected to be actively involved in the work planning and execution process.
6. Assigned personnel will be required to maintain specific program Task Qualification Program and project specific requirements.
7. Dedicated ESH&Q oversight of work activities will continue for work performed by Fluor Fernald and its subcontractors.
8. Departments within ESH&Q will be consolidated as plant population and number of projects decreases. The reduced organizations will report directly to ESH&Q management.

1.2.2 Exclusions

1. More requirements imposed by DOE.
2. Slip in schedule may require personnel in outyears.

1.2.3 Government Furnished Equipment/Services

None

1.3 DRIVERS

1. All DOE Orders relating to ESH&Q, Security, MC&A, and Emergency Services
2. Project staffing levels required to support/comply with ESHQ programs.
3. Leadership Team initiatives

1.4 SCOPE OF WORK:

The scope of work provided by ESH&Q involves the following scope:

1. Responsible for ESH&Q program oversight of the FEMP.
2. Provides direction and policy framework to ensure that activities at the FEMP are performed in a consistent and safe manner in accordance with the prime contract, all applicable laws, regulations, and DOE orders.
3. The ESH&Q division provides direction to all other divisions for matters regarding Environment Compliance, Safety & Health, (including Radiological), Emergency Services, Security & Access, Quality Assurance, and Material Control & Accountability.
4. Activities are monitored to ensure compatibility with commitments made to the DOE, EPA, the State of Ohio, and community stakeholders.
5. Responsible for coordination and interface with the ISRC who support the Leadership Team by reviewing key safety program performance.

The plan for performing the above ESH&Q Administration scope is to continue the above services until services are modified as follows:

1. The division will exist through 1st quarter FY10. However, reductions in this division's manpower will occur as the workforce declines in the baseline and the number of projects decline.
2. The ISRC staff will reduce .5 in FY03, 1.0 in FY05 and 1.0 in FY07 reflecting a decrease in the number of prospects/issues requiring their oversight.
3. Program Management reduces in FY07 and FY08 as management of ESH&Q will move to Silos Project manager.

The quantification for ESH&Q is based indirectly on the Fluor Fernald, Inc. project and subcontractor manpower and the consolidation of Quality Assurance, Operations Assurance, Environmental Compliance, and Health and Safety. These functions may reside with the Site Manager who is anticipated to be the Silos Project Manager. The resource requirement for this and the correlation with site manpower is shown in the following table:

R1-D-002

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1940	1432	1389	1133	1470	1179	814	427	239	98
ESH&Q Management	4	4	4	4	4	4	3	2	2	2
ISRC	2.5	2.5	2.0	2.0	1.0	1.0	0	0	0	0
Total	6.5	6.5	6.0	6.0	5.0	5.0	3.0	2.0	2.0	2.0
Subcontracts \$000	130	130	130	130	100	75	0	0	0	0
ODCs \$000	15	15	15	15	15	15	10	10	5	1
MATLS \$000	2	2	2	2	2	2	2	1	1	1

SECTION 10

2.0 MANPOWER PLANS

DRIVERS	START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx		
301 OSDF Summary Schedule	04/01/2004	12/23/2009																									
411 AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
502 WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
601 Soils Excavation Project Summary	10/01/2003	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
704 Silos AWR Summary	10/02/2000	10/23/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
801 Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
1001 Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
1101 Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx			
Project Management	Project Mgr.		24.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Project Management	Program Mgr.		37.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Administration	Department Administrator		28.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Information Management	Information Records Rep.		37.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
QA/QC	QA Engineer		0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
QA/QC	QA Manager		44.00	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5			
Sheet Totals:				170.00	6.50	6.50	6.50	6.50	6.50	6.50	6.00	6.00	6.00	6.00	6.00	6.00	6.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00			

Manpower Planning Sheet (CR2)

MPS # 1NC11 ESH&Q ADMINISTRATION

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007	xxx	xxx																		
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005																				
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
704 Silos AWR Summary	10/02/2000	10/23/2003																				
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				
Project Management	Project Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Project Management	Program Mgr.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Administration	Department Administrator		1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Information Management	Information Records Rep.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
QA/QC	QA Engineer		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
QA/QC	QA Manager		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sheet Totals:			3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	0.00	0.00	0.00	0.00	

SECTION 10
3.0 ESTIMATE

NCAAL

ESH&Q ADMINISTRATION

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 10-Sep-01

PROJECT MGR: GEORGE GARTRELL
CAM: DANNY WHITAKER-SHEPPARD

PREPARED BY: TRACY BRAUN

FISCAL YEAR: FY01 - FY10

PBS: 12

WBS: 1.1.N.C.

CTRL ACCT: NCAAL

CHARGE NO: NCAAL

COMMENT NO: 12-060

Resource: DEPADM
Res Dept: Overtime: DEPT ADMINISTRATOR EOC: SAL Class: LABOR

	Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,187.0	11,934.0	11,934.0	11,934.0	11,934.0
Yr Total Cost:	46,043	58,310	61,762	65,404	69,281	74,019	80,242	0	0	0
Cum Total Cost:	46,043	104,353	166,115	231,519	300,800	374,818	455,061	455,061	455,061	455,061

Resource: INRREP
Res Dept: Overtime: INFO RECORDS REP EOC: SAL Class: LABOR

	Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	387.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,187.0	11,934.0	13,681.0	15,428.0	15,815.0
Yr Total Cost:	43,095	54,577	57,808	61,217	64,846	69,280	75,105	79,162	87,971	20,088
Cum Total Cost:	43,095	97,673	155,481	216,698	281,543	350,823	425,929	505,091	593,062	613,150

Resource: MAT300
Res Dept: Overtime: MATERIAL OBJCLASS300 EOC: MAT Class: MATERIAL

	Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10
Yr Units:	3,728.0	2,000.0	2,000.0	2,000.0	2,000.0	2,000.0	2,000.0	1,000.0	1,000.0	1,000.0
Cum Units:	3,728.0	5,728.0	7,728.0	9,728.0	11,728.0	13,728.0	15,728.0	16,728.0	17,728.0	18,728.0
Yr Total Cost:	3,728	2,054	2,109	2,169	2,229	2,294	2,360	1,214	1,250	1,286
Cum Total Cost:	3,728	5,782	7,891	10,060	12,289	14,583	16,944	18,158	19,408	20,693

Resource: ODCTRVL
Res Dept: Overtime: TRAVEL RESOURCE EOC: ODC Class: ODC

	Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10
Yr Units:	15,000.0	15,000.0	15,000.0	15,000.0	15,000.0	15,000.0	10,000.0	10,000.0	5,000.0	1,000.0
Cum Units:	15,000.0	30,000.0	45,000.0	60,000.0	75,000.0	90,000.0	100,000.0	110,000.0	115,000.0	116,000.0
Yr Total Cost:	15,000	15,405	15,821	16,264	16,719	17,204	11,802	12,144	6,248	1,286
Cum Total Cost:	15,000	30,405	46,226	62,490	79,209	96,413	108,215	120,360	126,608	127,894

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INCLUDES ESCALATION COSTS

Resource:	PRJ MGR	PROJECT MANAGER	EOC:	LABOR									
Res Dept:		Overtime:	SAL	Class:									
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-		
Yr Hours:		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10		
Cum Hours:		1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	0.0	0.0	0.0	0.0		
Yr Total Cost:		1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,187.0	10,187.0	10,187.0	10,187.0	10,187.0		
Cum Total Cost:		129,460	163,953	173,659	183,897	194,799	208,121	0	0	0	0		
		129,460	293,413	467,071	650,969	845,768	1,053,889	1,053,889	1,053,889	1,053,889	1,053,889		

Resource:	PROMGR	PROGRAM MGR	EOC:	LABOR									
Res Dept:		Overtime:	SAL	Class:									
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-		
Yr Hours:		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10		
Cum Hours:		1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	387.0		
Yr Total Cost:		1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,187.0	11,934.0	13,681.0	15,428.0	15,815.0		
Cum Total Cost:		136,503	172,871	183,105	193,901	205,395	219,442	237,893	250,742	278,644	63,628		
		136,503	309,373	492,478	686,379	891,774	1,111,217	1,349,110	1,599,851	1,878,495	1,942,124		

Resource:	QACMGR	QA MANAGER	EOC:	LABOR									
Res Dept:		Overtime:	SAL	Class:									
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-		
Yr Hours:		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10		
Cum Hours:		3,630.0	4,367.5	3,494.0	3,494.0	1,747.0	1,747.0	0.0	0.0	0.0	0.0		
Yr Total Cost:		3,630.0	7,997.5	11,491.5	14,985.5	16,732.5	18,479.5	18,479.5	18,479.5	18,479.5	18,479.5		
Cum Total Cost:		195,367	247,418	209,652	222,013	117,587	125,629	0	0	0	0		
		195,367	442,785	652,437	874,451	992,038	1,117,667	1,117,667	1,117,667	1,117,667	1,117,667		

Resource:	SERV SUB	SUBS	EOC:	SUBCONTRACTORS									
Res Dept:		Overtime:	SUB	Class:									
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-		
Yr Units:		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10		
Cum Units:		130,000.0	130,000.0	130,000.0	130,000.0	100,000.0	75,000.0	0.0	0.0	0.0	0.0		
Yr Total Cost:		130,000.0	260,000.0	390,000.0	520,000.0	620,000.0	695,000.0	695,000.0	695,000.0	695,000.0	695,000.0		
Cum Total Cost:		130,000	133,510	137,115	140,954	111,462	86,021	0	0	0	0		
		130,000	263,510	400,625	541,579	653,041	739,062	739,062	739,062	739,062	739,062		

GRAND TOTALS:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Cum Hours:	9,438.0	11,355.5	10,482.0	10,482.0	8,735.0	8,735.0	5,241.0	3,494.0	3,494.0	774.0
Yr Total Cost:	9,438.0	20,793.5	31,275.5	41,757.5	50,492.5	59,227.5	64,468.5	67,962.5	71,456.5	72,230.5
Cum Total Cost:	699,196	848,098	841,031	885,818	782,318	802,010	407,403	343,262	374,113	86,288
		1,547,294	2,386,325	3,274,144	4,056,462	4,858,472	5,265,875	5,609,138	5,983,251	6,069,539

CAM 50% hours billed for George Street CONTROL TEAM Linda Zucote

SECTION 10
4.0 RISK PLAN

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WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 1
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE SHARON CORNWELL 648-4165	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAP	13. TASK DESCRIPTION (ONE LINE) ESH&Q INTEGRATION		

a. ELEMENTS OF COST:

Labor
Material
Subcontracts
ODCs

b. TECHNICAL CONTENT:

The ESHQ Integration Department was created to place emphasis and priority on the integration of the Fernald site's Integrated Safety Management System (ISMS), Voluntary Protection Program (VPP), site safety committees as well as other matters requiring a site wide coordinated effort with the ESH&Q program. This includes coordination of programmatic and project ESH&Q activities. This work scope will define the details of activities performed within the integration role.

c. SCOPE OF WORK:

Integrated Safety Management System

In October of 1996, DOE EH signed DOE Policy 450.4, Safety Management System Policy, to institutionalize a safety management system consistently across the DOE complex. This approach uses contract clauses that require contractors to follow the ISM objective, guiding principles and core functions.

Fluor Fernald has described its safety management system in PL-3081, Safety Management System Description. The framework for safety and health across the DOE complex is a set of written Policies, Rules, Orders and Standards. The

Project Manager <i>George Sartell</i> for George Sartell	Control Account Manager <i>George Sartell</i> for George Sartell	Control Team Manager <i>Linda Teete</i>
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WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE SHARON CORNWELL 648-4165	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAP	13. TASK DESCRIPTION (ONE LINE) ESH&Q INTEGRATION		

14. ELEMENT TASK DESCRIPTION

implementation and integration of these standards at the FEMP establishes a safe workplace for the worker as well as ensuring the safety of the public and the environment. The Safety Management System Description is integral to ensuring that safety is integrated into all work performed under the contract. This document is approved by DOE annually when the safety system is revalidated in accordance with contract requirements.

While the foundation of ISM is that line management is responsible for safety, the ISMS is managed/coordinated by a programmatic support organization. This allows the flexibility that as funding levels shift, and site priorities for achieving site closure evolve, the ISM system remains intact. The ISMS was designed and is described in terms of how the work is safely executed. In this regard, the graded approach is built in the work with higher degree hazards analyzed and planned appropriately.

Voluntary Protection Program

The Department of Energy's Voluntary Protection Program (DOE-VPP) was established to promote and recognize highly effective safety and health programs. Through the DOE-VPP, management, labor and DOE establish a cooperative relationship in which management administers a comprehensive program that exceeds mere compliance. Employees actively participate in the program and work with management to ensure a safe and healthful work site. DOE initially verifies that the program meets the VPP criteria and then reassesses the site periodically to confirm that it continues to meet VPP criteria. DOE-VPP recognizes sites that go beyond DOE and OSHA requirements for protecting workers. Qualified sites also receive public recognition for their safety and health program.

In June 2000, Fluor Fernald submitted the DOE-VPP application to the Ohio Field Office and DOE Headquarters. Following their review and approval, a site visit was scheduled and conducted during October 2000. This onsite review team concluded that all but a few criteria for VPP STAR status had been met. Fluor Fernald proceeded to conduct activities during November to ensure that all criteria were met. This led to notification in January 2001 of DOE-VPP STAR status for Fluor Fernald.

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 3
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE SHARON CORNWELL 648-4165	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAP	13. TASK DESCRIPTION (ONE LINE) ESH&Q INTEGRATION		

14. ELEMENT TASK DESCRIPTION

With acceptance into the program at STAR status, several activities are anticipated to be necessary in order to maintain safety excellence and to be successful with subsequent reviews at an interval of every three years. Many of the activities will be integrated with the ISM efforts, some will need to remain separate.

Safety Committees

Fernald has a long history of employee involvement in the safety process through safety committees. Safety committees have been and continue to be an integral part of the feedback mechanisms, a forum for sharing lessons learned, as well as a resolution tool for safety issues. The organization of FEMP safety committees are authorized by management for the purpose of considering safety issues and also to encourage the development of good safety, health and ALARA practices.

Activities of the various safety committees focus on the ISM core functions, particularly identification of hazards and feedback. Typically a secretary is assigned to take minutes of each meeting to include time and date of the meeting, general business discussed and a list of attendees. Most of these committees meet on a monthly basis. Some meet more or less often.

Safety Recognition

Periodically the site's safety performance reaches certain milestones which management determines is worthy of special recognition. In the past, this recognition was not allowable under the contract with DOE. With the new contract, recognition is allowable if it meets the FAR requirements and is part of the workscope defined in the baseline.

Safety recognition in the past has typically been associated with a certain number of safe work hours accomplished, achieving goals set for OSHA recordable rate, or length of time since the last injury resulting in time lost. This recognition may be site wide including subcontractor employees or for a certain segment of the total workforce. This may include the recognition of

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 4
3. WBS ELEMENT CODE 1.1.N.C	4. WBS ELEMENT TITLE/NAME SAFETY & HEALTH		
5. PERFORMING DIV/DEPARTMENT CODE 41	6. ORIGINATOR NAME/PHONE SHARON CORNWELL 648-4165	7. WBS ELEMENT MANAGER DANNY WHITAKER-SHEPPARD	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NCAAP	13. TASK DESCRIPTION (ONE LINE) ESH&Q INTEGRATION		

14. ELEMENT TASK DESCRIPTION

individuals, groups, departments, divisions, or the site as a whole.

Fluor as a corporation also has recognition programs for projects or individuals. This recognition is typically an application process to determine if the criteria are met. The recognition item is then billed to the Fernald project.

d. WORK SPECIFICALLY EXCLUDED:

None.

SECTION 11

1.0 NARRATIVE

1. PROJECT TITLE: PROGRAM SUPPORT and OVERSIGHT	2. DATE: 09/10/01	3. PBS#: 12
4. WBS ELEMENT CODE: 1.1.N.C	5. WBS ELEMENT TITLE: ENVIRONMENTAL, SAFETY, HEALTH & QUALITY	
6. CAM NAME/ PHONE: GEORGE GARTRELL/3996	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: NCAA	

Part 3: ENVIRONMENT, SAFETY, HEALTH AND QUALITY (NCAA)

Section 11: ESH&Q Integration (NCAAP)

1.0 NARRATIVE

1.1 OVERVIEW

The ESHQ Integration organization places emphasis and priority on the integration of the Fernald site's Integrated Safety Management System (ISMS), Voluntary Protection Program (VPP), site safety committees and safety recognition programs.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1. Integrated Safety Management System

- DOE will continue to require an ISMS as currently defined in DOE P 450.1, 450.4, and Fluor Fernald's contract.
- DOE will not substantially change the ISMS from how it is currently defined in DOE P 450.1 and 450.4.
- DOE will not require implementation of new requirements which replace or supplement the ISMS.
- DOE will not direct or expect that the safety and health programs Fluor Fernald has currently defined and described as part of the safety management system will change substantially.
- Fluor Fernald will continue to maintain the safety and health programs as they are currently defined and described as part of the safety management system.
- DOE will continue to require annual update, review and approval to the Safety Management System description.
- DOE will continue to require annual review and approval of the safety performance measures, indicators, objectives, and commitments.
- DOE will continue to require quarterly reports of performance indicators.
- The site's scope and schedule will not substantially change from what is being planned.

- Fluor Fernald will continue to “pass” the annual ISM reviews conducted by DOE with few if any corrective actions necessary.
 - No significant change in project structure or ISM flowdown mechanisms being utilized by the projects.
2. Voluntary Protection Program
- DOE will continue to encourage participation in the DOE-VPP program.
 - Fluor Fernald will want to continue to maintain the VPP STAR status achieved.
 - DOE will not substantially change the DOE-VPP guidance and criteria from how it is currently defined.
 - DOE will not require implementation of new requirements which replace or supplement the DOE-VPP.
 - DOE will not direct or expect that the safety and health programs Fluor Fernald has currently defined and described as part of the VPP application will change substantially.
 - Fluor Fernald will continue to maintain the safety and health programs as they are currently defined and described as part of the VPP application.
 - DOE-VPP will continue to require an annual self-assessment review and evaluation of the Fluor Fernald safety and health programs against the DOE-VPP criteria.
 - DOE will continue to require review and re-verification of safety and health programs once every three years.
 - The site’s scope and schedule will not substantially change from what is being planned.
 - Fluor Fernald will continue to “pass” the annual self-assessment reviews of the Fluor Fernald safety and health program with few if any corrective actions necessary.
 - Fluor Fernald will continue to “pass” the VPP reviews conducted by DOE every three years with few if any corrective actions necessary.
3. Safety Committees
- DOE will continue to encourage employee involvement in the safety and health program through safety committees.
 - DOE will not require implementation of new requirements which replace or supplement the DOE-VPP which have an impact on safety committees.
 - DOE will not direct or expect that the safety committees Fluor Fernald currently defined and described will not change substantially from what the contract says.
 - Fluor Fernald will continue to support the safety committees as they are currently defined and described.
 - Bargaining unit agreements currently in place will not change substantially the language describing safety committees.
 - The site’s scope and schedule will not substantially change from what is being planned.

- Fluor Fernald will continue to support safety committees in similar number and purpose as currently in place.
4. Safety Recognition
- DOE will continue to encourage employee recognition for safety performance.
 - Fluor Fernald will want to continue to recognize employees for safety performance on a periodic basis.
 - DOE will not substantially change the guidance and criteria for what is allowable to be billed for employee recognition from how it is currently defined.
 - DOE will not require implementation of new requirements which replace or supplement current requirements for safety recognition.
 - DOE will not direct or expect that the safety recognition Fluor Fernald currently shares will change substantially.
 - The site's scope and schedule will not substantially change from what is being planned.
 - Safety Recognition items will at least, in part, be reimbursable by DOE which is different than under the previous contract.

1.2.2 Exclusions

1. Integrated Safety Management System
 - Line management is responsible for safety. Therefore ISMS specifically excludes the cost for compliance incurred by the Projects.
2. Voluntary Protection Program
 - None
3. Safety Committees
 - Any additional safety committees if desired would be additional scope.
4. Safety Recognition
 - Specifically excludes any items not reimbursed by DOE.

1.2.3 Government Furnished Equipment/Services

For both Integrated Safety Management System and Voluntary Protection Program, DOE provides assessment services to verify programs. In each case they incur the cost and burden of facilitating the team, providing computer support and facilities.

1.3 DRIVERS

1. Integrated Safety Management System
 - Dramatic change in the structure of the projects.
 - Changes in the way we execute work.
2. Voluntary Protection Program

- Dramatic change in the structure of the projects.
 - Changes in the way we execute work.
3. Safety Committees
- Dramatic change in the structure of the projects.
 - Changes in the way we execute work.
4. Safety Recognition
- Dramatic change in the structure of the projects.
 - Changes in the way we execute work.

1.4 SCOPE OF WORK

1.4.1. Task #1 - Integrated Safety Management System

In October of 1996, DOE EH signed DOE Policy 450.4, Safety Management System Policy, to institutionalize a safety management system consistently across the DOE complex. This approach uses contract clauses that require contractors to follow the ISM objective, guiding principles and core functions.

Fluor Fernald has described its safety management system in PL-3081, Safety Management System Description. The framework for safety and health across the DOE complex is a set of written Policies, Rules, Orders and Standards. The implementation and integration of these standards at the FEMP establishes a safe workplace for the worker as well as ensuring the safety of the public and the environment. The Safety Management System Description is integral to ensuring that safety is integrated into all work performed under the contract. This document is approved by DOE annually when the safety system is revalidated in accordance with contract requirements.

While the foundation of ISM is that line management is responsible for safety, the ISMS is managed/coordinated by a programmatic support organization. This allows the flexibility that as funding levels shift, and site priorities for achieving site closure evolve, the ISM system remains intact. The ISMS was designed and is described in terms of how the work is safely executed. In this regard, the graded approach is built in the work with higher degree hazards analyzed and planned appropriately.

The scope of work provided by Integrated Safety Management in FY01 includes the following:

1. Review and revise PL-3081, Safety Management System description annually for delivery to DOE-FEMP prior to March 6 each year.
2. Obtain approval of PL-3081 from DOE-FEMP annually.
3. Review and submit to DOE-FEMP ISMS performance measures, indicators, objectives and commitments annually prior to March 6 each year.

4. Conduct 12-15 assessments or surveillances to ensure elements of ISM system are being maintained.
5. Conduct 1 large-scale or 2-3 smaller-scale self-assessments or a joint self-assessment with DOE-FEMP to ensure that the overall integrity of the ISM system is maintained.
6. Promote ISMS core functions and guiding principles through posters, cards, site communication messages, banners, stickers, providing briefings or training to project and support groups, or other means considered necessary to ensure a high-level of awareness.
7. Support project organizations in interpreting, implementing, and executing the ISMS functions and principles into their scope of work.
8. Perform 80 – 100 document reviews annually to ensure ISMS functions and principles are adequately represented, defined, and implemented.
9. Track and report to DOE-FEMP on approved performance measures, indicators, objectives and commitments quarterly or monthly depending on the indicator frequency.
10. Prepare for and follow-up from 1 ISMS assessment from DOE annually.
11. Have at least 2 people attend 3 conferences throughout the year to maintain contact with DOE on changing priorities.

The plan for performing the above Integrated Safety Management System scope is to continue the above services until services are modified as follows:

Level of effort activities for ISMS are proportionate to the number of projects ongoing and their relative hazards and complexity. The FEMP will always have an ISM system which is representative of the site's hazards and work processes. As projects are completed, the ISMS will be revised to reflect the changes. Annual assessments will still be necessary, only the complexity will vary based on the active projects. The resource requirements for all ESH&Q Integration activities are identified in the table at the end of this section.

1.4.2. Task #2 - Voluntary Protection Program

The Department of Energy's Voluntary Protection Program (DOE-VPP) was established to promote and recognize highly effective safety and health programs. Through the DOE-VPP, management, labor and DOE establish a cooperative relationship in which management administers a comprehensive program that exceeds mere compliance. Employees actively participate in the program and work with management to ensure a safe and healthful work site. DOE initially verifies that the program meets the VPP criteria and then reassesses the site periodically to confirm that it continues to meet VPP criteria. DOE-VPP recognizes sites that go beyond DOE and OSHA requirements for protecting workers. Qualified sites also receive public recognition for their safety and health program.

In June 2000, Fluor Fernald submitted the DOE-VPP application to the Ohio Field Office and DOE Headquarters. Following their review and approval, a site visit was scheduled and conducted during October 2000. This onsite review team concluded that all but a few criteria for VPP STAR status had been met. Fluor Fernald proceeded to conduct activities during November to ensure that all criteria were met. This led to notification in January 2001 of DOE-VPP STAR status for Fluor Fernald.

With acceptance into the program at STAR status, several activities are anticipated to be necessary in order to maintain safety excellence and to be successful with subsequent reviews at an interval of every three years. Many of the activities will be integrated with the ISM efforts, some will need to remain separate.

The scope of work provided by the Voluntary Protection Program in FY01 includes the following:

1. Conduct 12-15 assessments or surveillances annually to ensure elements of VPP criteria are being maintained.
2. Conduct 1 large-scale or 2-3 smaller-scale self-assessments or a joint self-assessment annually with DOE-FEMP to ensure that the overall integrity of the safety and health system is maintained current with the VPP criteria.
3. Promote the tenets of VPP through posters, cards, site communication messages, banners, stickers, providing briefings or training to project and support groups, or other means considered necessary to ensure a high-level of awareness.
4. Support project organizations in interpreting, implementing, and executing the tenets of VPP into their scope of work.
5. Track and report to DOE-FEMP on the progress and completion of VPP commitments from the annual evaluation.
6. Prepare for and follow-up from 1 VPP assessment from DOE every three years.
7. Have up to 10 people attend the annual VPPPA conference.

The plan for performing the above Voluntary Protection Program scope is to continue the above services until services are modified as follows:

As stated earlier, the VPP program is a voluntary program. At any time management may decide that the effort is not worth the results. Every three years the DOE will return to assess the maintenance of the safety and health program excellence. That year, the effort will be more extensive on our part to self-assess and plan for an onsite review team. During the other years, an extensive program evaluation is required to DOE HQ. This can typically be accomplished by borrowing project resources for a week or so to do the evaluation and ESH&Q Integration will write up the report. The

resource requirements for all ESH&Q Integration activities are identified in the table at the end of this section.

1.4.3. Task #3 - Safety Committees

Fernald has a long history of employee involvement in the safety process through safety committees. Safety committees have been and continue to be an integral part of the feedback mechanisms, a forum for sharing lessons learned, as well as a resolution tool for safety issues. The organization of FEMP safety committees are authorized by management for the purpose of considering safety issues and also to encourage the development of good safety, health and ALARA practices.

Activities of the various safety committees focus on the ISM core functions, particularly identification of hazards and feedback. Typically a secretary is assigned to take minutes of each meeting to include time and date of the meeting, general business discussed and a list of attendees. Most of these committees meet on a monthly basis. Some meet more or less often.

Support and maintain the major site safety committees consistent with each of their areas of responsibility:

- Central Safety Partnership Council
- Safety First Committee
- Tri-Partite Committee
- 25-Member Safety Committee
- FAT&LC Wage Safety Advocates
- Subcontractor Safety Oversight Committee
- Subcontractor Safety Committee
- Subcontractor Management Committee

The scope of work provided by the Safety Committees in FY01 includes the following:

1. Ensure that each of the committees is adequately managed, has clear roles and responsibilities, maintains its membership, meets regularly, and maintains minutes for documentation of their meetings.
2. Establish the site safety committee structure to show how the various committees relate.
3. Maintain copies of meeting minutes as record of employee involvement for review under VPP criteria.

The plan for performing the above Safety Committees scope is to continue the above services until services are modified as follows:

The number, and activities, of the various safety committees are directly proportionate to the site population. As the site population of Fluor Fernald and Subcontractors decreases, the number of active safety committees

and/or the frequency of scheduled meetings can be reduced. The resource requirements for all ESH&Q Integration activities are identified in the table at the end of this section.

1.4.4 Task #4 - Safety Recognition

Periodically the site's safety performance reaches certain milestones which management determines is worthy of special recognition. In the past, this recognition was not allowable under the contract with DOE. With the new contract, recognition is allowable if it meets the FAR requirements and is part of the workscope defined in the baseline.

Safety recognition in the past has typically been associated with a certain number of safe work hours accomplished, achieving goals set for OSHA recordable rate, or length of time since the last injury resulting in time lost. This recognition may be site wide including subcontractor employees or for a certain segment of the total workforce. This may include the recognition of individuals, groups, departments, divisions, or the site as a whole.

Fluor as a corporation also has recognition programs for projects or individuals. This recognition is typically an application process to determine if the criteria are met. The recognition item is then billed to the Fernald project.

The scope of work provided by Safety Recognition in FY01 includes the following:

1. Determine appropriate intervals or milestones for which to recognize the site population for excellence in safety performance.
2. Purchase and distribute recognition items consistent with FAR criteria, approximately 3 times per year.
3. Manage the requests for Fluor Corporation safety recognition, approximately 20 per year.
4. Determine appropriate individuals, groups, departments, and divisions which warrant safety recognition on an as needed basis.

The plan for performing the above Safety Recognition scope is to continue the above services until services are modified as follows:

1. Safety recognition activities are also based on the changing site population. When recognition events take place, and the frequency of events, are somewhat unknown because it is based on safety performance. The cost of the recognition is directly proportionate to the number of employees and subcontractors. The resource requirements for all ESH&Q Integration activities are identified in the table at the end of this section.

1.4.5 The Plan Summary

1. In the 3rd quarter of FY06, the program maintenance and oversight groups of Environmental Compliance, Occupational Safety & Health, Safety Analysis, Integrated Safety Management, and Radiological Control will be consolidated into a single ES&H oversight organization and assigned to the Site Project Manager, who is anticipated to be the Silos Project Manager. This organization will continue to be responsible for site wide programs in these disciplines, even though it will be located in a project organization, rather than a separate programmatic organization. The manpower required by this consolidated organization is being entered separately on the Environmental Compliance, Occupational Safety & Health, Safety Analysis, Integrated Safety Management, and Radiological Control manpower sheets to ensure that the manpower requirement for this consolidated scope is captured in the baseline effort.
2. In keeping with the consolidation of program maintenance and oversight functions of the Environmental Compliance, Occupational Safety & Health, Safety Analysis, Integrated Safety Management and Radiological Control functions, certain assumptions have been made. It is assumed that these groups have certain general functions in common such as:
 - Program Documentation
 - Record keeping/Reporting (RCRA, OSHA, Workman's Comp, Radiation Exposures, Chemical Exposures)
 - Independent Assessment and Oversight
 - Permitting
 - Event Investigation
 - PAAA Evaluation (Rad, SA)
 - Compliance Training/Qualifications.
3. It is assumed that as projects are completed and the population decreases, the documentation system is also streamlined requiring fewer resources to maintain. The specifics are not known at this point, but the volume of procedures, manuals and plans that currently define each program will be significantly reduced. Similarly, as the population of workers decreases, the record keeping and reporting level of effort will reduce proportionately.
4. Independent Assessment and programmatic oversight responsibilities are proportionate to the number and activities of each project. The consolidation of ES&H functions will allow a smaller number of people, working together to accomplish the desired level of effort and independence.
5. Permitting, event investigation and training/qualifications are functions which each group currently performs that with a consolidated organization can be done by a smaller number of people and cover all the ES&H functions.
6. PAAA evaluation is a specialty area which is assumed to be dependent on the number of projects and activities. As the project scopes are

completed, the number of data points which need PAAA evaluation will decrease.

1.4.6 The Quantification Summary

The quantification for each task is based on the plan summary discussed above. The resource requirements for this and the correlation with site manpower is shown in the following table:

Active Projects	Silos	2001 Silos	2002 Silos	2003 Silos	2004 Silos	2005 Silos	2006 Silos	2007 Silos	2008 Silos	2009 Silos	2010 Site Comp.
	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Aquifer	Site Comp.
	D&D	D&D	D&D	D&D	D&D	D&D	D&D	D&D			Site Comp.
	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP	WPRAP				Site Comp.
	WGS	WGS	WGS	WGS	WGS	WGS	WGS				Site Comp.
	NMD	NMD	NMD								Site Comp.
	SCEP	SCEP				SCEP	SCEP	SCEP	SCEP	SCEP	Site Comp.
	OSDF	OSDF				OSDF	OSDF	OSDF	OSDF	OSDF	Site Comp.
Number of ESH&Q Integration Resources (FTE)	Program Manager	1	1	1	0	0	0	0	0	0	0
	Safety Engineer	3	2	2	2	1.5	1	1	0	0	0
	Construction Technician	1	1	1	0	0	0	0	0	0	0
Safety Recognition Materials		75,000	60,000	60,000	55,000	55,000	45,000	22,000	10,000	5,000	2,500
ODC		3,500	3,000	3,000	1,500	1,200	1,000	1,000	0	0	0
Travel		9,000	7,000	7,000	3,500	3,000	1,500	1,500	0	0	0
Subcontracts		0	0	0	0	0	0	0	0	0	0

SECTION 11

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1NC12 ESH&Q INTEGRATION

DRIVERS	START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
301 OSDF Summary Schedule	04/01/2004	12/23/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
411 AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
502 WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
601 Soils Excavation Project Summary	10/01/2003	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
704 Silos AWR Summary	10/02/2000	10/23/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
801 Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
1001 Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
1101 Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Project Management			12.20	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & H Safety Engineer			50.00	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	1.5	1.5	1.5	1.5	1	1	1	1
Security/Emergency Man			12.00	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Communications Tech.																											
Sheet Totals:				74.20	5.00	5.00	5.00	4.00	4.00	4.00	4.10	4.00	4.00	4.00	4.00	2.00	2.00	2.00	1.50	1.50	1.50	1.50	1.00	1.00	1.00	1.00	1.00

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MPS # 1NC12

ESH&Q INTEGRATION

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SECTION 11

3.0 ESTIMATE

NCAAP

ESH&Q INTEGRATION

Fluor Fernald, Inc.

**ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)**

DATE: 10-Sep-01

PROJECT MGR: SHARON KOHLER
CAM: DANNY WHITAKER-SHEPPARD
PREPARED BY: TRACY BRAUN
FISCAL YEAR: FY01 - FY10

[illegible]

Resource:	MAT300	MATERIAL OBJCLASS300	Class:										EOC:	MATERIAL
Res Dept:		Overtime:	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-		
			Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10		
Yr Units:		75,000.1	60,000.0	60,000.0	60,000.0	55,000.0	55,000.0	45,000.0	22,000.0	10,000.0	5,000.0	2,500.0		
Cum Units:		75,000.1	135,000.1	195,000.1	250,000.1	305,000.1	350,000.1	372,000.1	389,500.1	399,500.1	399,500.1	399,500.1		
Yr Total Cost:		75,000	61,620	63,284	59,634	61,304	51,613	25,965	6,248	12,144	3,215	3,215		
Cum Total Cost:		75,000	136,620	199,904	259,538	320,842	372,455	398,419	416,812	420,027	420,027	420,027		

Resource:	ODC700	ODC 700	Class:										EOC:	ODC
Res Dept:		Overtime:	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-		
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10			
Yr Units:		3,500.0	32,000.0	27,000.0	18,500.0	13,000.0	11,500.0	11,500.0	7,500.0	5,000.0	2,500.0			
Cum Units:		3,500.0	35,500.0	62,500.0	81,000.0	94,000.0	105,500.0	117,000.0	124,500.0	129,500.0	132,000.0			
Yr Total Cost:		3,500	32,864	28,478	20,059	14,490	13,190	13,572	9,108	6,248	3,215			
Cum Total Cost:		3,500	36,364	64,842	84,901	99,391	112,580	126,153	135,261	141,509	144,724			

Resource: Res Dept:	ODCTRVL	TRAVEL RESOURCE Overtime:	Class:				EOC: ODC	ODC			
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
		9,000.0	7,000.0	7,000.0	3,500.0	3,000.0	1,500.0	1,500.0	0.0	0.0	0.0
		9,000.0	16,000.0	23,000.0	26,500.0	29,500.0	31,000.0	32,500.0	32,500.0	32,500.0	32,500.0
		Cum Units:									
		Yr Total Cost:	7,189	7,383	3,795	3,344	1,720	1,770	0	0	0
		Cum Total Cost:	9,000	23,572	27,367	30,711	32,431	34,202	34,202	34,202	34,202

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INCLUDES ESCALATION COSTS

Resource: PROMGR PROGRAM MGR
Res Dept: Overtime:

	Class:		EOC:		LABOR	
	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-
Yr Hours:	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07
Cum Hours:	1,836.0	1,747.0	0.0	0.0	0.0	0.0
Yr Total Cost:	3,288.0	5,035.0	5,035.0	5,035.0	5,035.0	5,035.0
Cum Total Cost:	181,678	183,105	0	0	0	0
	318,180	501,285	501,285	501,285	501,285	501,285

Resource: S&HENG SAFETY ENGINEER
Res Dept: Overtime:

	Class:		EOC:		LABOR	
	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-
Yr Hours:	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07
Cum Hours:	3,494.0	3,494.0	3,494.0	2,620.5	1,747.0	1,747.0
Yr Total Cost:	7,850.0	11,344.0	14,838.0	17,458.5	19,205.5	20,952.5
Cum Total Cost:	182,819	183,642	205,059	162,911	116,035	125,791
	399,356	592,998	798,057	960,969	1,077,004	1,202,795

GRAND TOTALS:

	Class:		EOC:		LABOR	
	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-
Yr Hours:	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07
Cum Hours:	7,077.0	6,988.0	3,494.0	2,620.5	1,747.0	1,747.0
Yr Total Cost:	14,337.0	21,325.0	24,819.0	27,439.5	29,186.5	30,933.5
Cum Total Cost:	524,333	537,498	288,547	242,049	182,558	167,099
	1,010,799	1,548,297	1,836,844	2,078,894	2,261,452	2,428,551

CAM *Submitted for George Street* CONTROL TEAM *Linda Abbott*

SECTION 11

4.0 RISK PLAN

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Part 4: NDAA – Site Closure

Section 1: NDAAF – Cultural Resource Management

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 Compliance Reports
 - 1.4.2 Cultural Resource Management Surveys
 - 1.4.3 Collection and Preservation
 - 1.4.4 Cultural Resource Management Training and Outreach Programs
- 2.0 Manpower Plans
 - 2.1 Cultural Resource Management
- 3.0 Estimate
- 4.0 Risk Plan

Part 4: NDAA – Site Closure

Section 2: NDAAJ – Site Closure Planning and Integration

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 Support Technical Liaison
 - 1.4.2 Site-wide Integration
 - 1.4.3 Risk Management Planning
 - 1.4.4 Organizational Infrastructure Planning
 - 1.4.5 Planning Modeling
 - 1.4.6 Facility and Land Use Planning
- 2.0 Manpower Plans
 - 2.1 Site Closure Planning and Integration
- 3.0 Estimate
- 4.0 Risk Plan

Part 4: NDAA – Site Closure

Section 3: NDAAK – Stewardship Planning

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 Long-Term Stewardship Planning
 - 1.4.2 Future Use Planning
 - 1.4.3 Regulatory/Natural Resource Trustee Interface
 - 1.4.4 Interface with Soils and Disposal Facility Project
 - 1.4.5 Preparation of Perimeter Areas for Restoration
 - 1.4.6 Collection of Baseline and Reference Site Data
 - 1.4.7 Acquisition of Deer Management Consultant
 - 1.4.8 The Plan
 - 1.4.9 Quantification
- 2.0 Manpower Plans
 - 2.1 Stewardship Planning
- 3.0 Estimate
- 4.0 Risk Plan

Part 4: NDAA – Site Closure

Section 4: NDAAL – Closure Project Management

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 Technical Liaison
 - 1.4.2 Strategic Planning
 - 1.4.3 Performance Evaluation
 - 1.4.4 Technical Integration
 - 1.4.5 Organizational Infrastructure
 - 1.4.6 Division Management
- 2.0 Manpower Plans
 - 2.1 Closure Project Management
- 3.0 Estimate
- 4.0 Risk Plan

Part 4: NDAA – Site Closure

Section 5: NDAAU – Central Engineering

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 Functional Area Scope
 - 1.4.2 A-E and/or Teaming Partner Task Order Coordination
 - 1.4.3 Projects/Support Organizations
 - 1.4.4 CADD Services
 - 1.4.5 General Engineering Services
- 2.0 Manpower Plans
 - 2.1 Central Engineering
- 3.0 Estimate
- 4.0 Risk Plan

Part 4: NDAA – Site Closure
Section 6: NDAAV – Technology Programs

- 1.0 Narrative
 - 1.1 Overview
 - 1.2 Assumptions
 - 1.3 Drivers
 - 1.4 Scope of Work
 - 1.4.1 Department Administration
 - 1.4.2 Site Technology Coordination Group
 - 1.4.3 Technology Investigation for Deployment
 - 1.4.4 Project Execution
- 2.0 Manpower Plans
 - 2.1 Technology Programs
- 3.0 Estimate
- 4.0 Risk Plan

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

**U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION**

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE OF CONTRACT 12/01/2000	
3. IDENTIFICATION NUMBER DE-AC24-01OH20115		4. INDEX LINE NO. 76	
5. WBS ELEMENT CODE 1.1.N.D		6. WBS ELEMENT TITLE SITE CLOSURE	
7. APPROVED CP NO. NEW PER CP# FY01-0115-0012-00		8. DATE OF CHANGES 12/01/2000	
9. SYSTEM DESIGN DESCRIPTION ENVIRON. RESTORATION		10. BUDGET AND REPORTING NUMBER EW05H3120	
11. ELEMENT TASK DESCRIPTION			
<p><u>a. ELEMENTS OF COST:</u></p> <p>Labor Subcontractors Material ODCs</p> <p><u>b. TECHNICAL CONTENT:</u></p> <p>Primary Drivers: Fernald Closure Contract DOE Orders, Regulations, Standards, Statutes, and Directives Federal and State Laws Amended Consent Agreements (CERCLA, US EPA) Consent Decree (RCRA, State of Ohio) Federal Acquisition Regulation United States Department of Energy Acquisition Regulation</p> <p><u>c. SCOPE OF WORK:</u></p> <p>The following activities are contained within Site Closure:</p> <p>Cultural Resources - provides management and administration of the Cultural Resources activities consistent with Federal and State Environmental Regulations and DOE Orders. Implement Programmatic Agreement for Archaeological Resources and historical documentation of site. Curation of prehistoric, historic, and cold war artifacts.</p> <p>Site Closure Planning & Integration (SCP&I) - provides for the technical management of the closure contract, acts as technical liaison between projects, develops and updates the Facility Integrated Infrastructure Closure Plan, Risk</p>			

**U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION**

1. PROJECT TITLE FEMP (DEFENSE)	2. DATE OF CONTRACT 12/01/2000
3. IDENTIFICATION NUMBER DE-AC24-01OH20115	4. INDEX LINE NO. 76
5. WBS ELEMENT CODE 1.1.N.D	6. WBS ELEMENT TITLE SITE CLOSURE
7. APPROVED CP NO. NEW PER CP# FY01-0115-0012-00	8. DATE OF CHANGES 12/01/2000
9. SYSTEM DESIGN DESCRIPTION ENVIRON. RESTORATION	10. BUDGET AND REPORTING NUMBER EW05H3120
11. ELEMENT TASK DESCRIPTION <p>Management Plan, Manpower Plan, Make-or-Buy Technical Analysis, program/project review, and modeling and execution scenarios as needed. SCP&I is responsible to provide impacts on office and storage planning and coordination of space located on and off the Fernald site to Space Management.</p> <p>Closure Project Management - External technical liaison by Director. Provides for both the Project Director and support staff as well as the administrative and technical management of integrated activities for all Site Closure departments. Manages alignment of crosscutting issues, program/project review, organizational development and performance measurement of the FEMP Closure Contract.</p> <p>Engineering Services - provides support for the Configuration Management and Engineering Design functional areas, A/E support services, and A/E ERA Project contract closeout activities. It also provides administration and/or support for engineering support services, Computer Aided Design and Drafting (CADD), oversight and assessment of engineering activities, engineering technical support staff qualification, and the Technical Review Board.</p> <p>Technology Programs - provides overall direction, administration and management of Fluor Fernald efforts and workscope to identify needs for, locate, acquire, evaluate, develop, demonstrate, apply and deploy advanced technologies for safer, faster, cheaper remediation including dissemination to other DOE sites. It also plans, coordinates, and administers work performed by selected Ohio universities and Historically Black Colleges and Universities/Minority Institutions Environmental Technology Consortium (HBCU/MIETC) members.</p> <p>Stewardship Management - includes planning and document preparation associated with long-term stewardship of the FEMP; planning interface and documentation associated with future use of the FEMP; regulatory, stakeholder and natural resource trustee interface on stewardship and future use issues; and technical support of project on restoration and revegetation issues and the maintenance of restored and certified areas.</p>	

**U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION**

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE OF CONTRACT 12/01/2000	
3. IDENTIFICATION NUMBER DE-AC24-01OH20115		4. INDEX LINE NO. 76	
5. WBS ELEMENT CODE 1.1.N.D		6. WBS ELEMENT TITLE SITE CLOSURE	
7. APPROVED CP NO. NEW PER CP# FY01-0115-0012-00		8. DATE OF CHANGES 12/01/2000	
9. SYSTEM DESIGN DESCRIPTION ENVIRON. RESTORATION		10. BUDGET AND REPORTING NUMBER EW05H3120	
11. ELEMENT TASK DESCRIPTION			

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE

FEMP (DEFENSE)

2. DATE

12/01/2000

Page 1

3. WBS ELEMENT CODE

1.1.N.D

4. WBS ELEMENT TITLE/NAME

SITE CLOSURE

5. PERFORMING DIV/DEPARTMENT CODE

45

6. ORIGINATOR NAME/PHONE

DEBBIE SHERBS 648-5137

7. WBS ELEMENT MANAGER

TERRY HAGEN

8. BUDGET AND REPORTING NUMBER

EW05H3120

9. BUDGET TITLE

PROGRAM SUPPORT & OVERSIGHT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?

NEW PER CP# FY01-0115-0012-00

11. ESTIMATED START / COMPLETION DATE

12/01/00 - 12/27/09

12. TASK IDENTIFICATION (CONTROL ACCOUNT)

NDAA

13. TASK DESCRIPTION (ONE LINE)

SITE CLOSURE

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontractors
Material
ODCs

b. TECHNICAL CONTENT:

Primary Drivers:

Fernald Closure Contract
DOE Orders, Regulations, Standards, Statutes, and Directives
Federal and State Laws
Amended Consent Agreements (CERCLA, US EPA)
Consent Decree (RCRA, State of Ohio)
Federal Acquisition Regulation
United States Department of Energy Acquisition Regulation

c. SCOPE OF WORK:

The following activities are contained within Site Closure:

Cultural Resources - provides management and administration of the Cultural Resources activities consistent with Federal and State Environmental Regulations and DOE Orders. Implement Programmatic Agreement for Archaeological Resources and historical documentation of site. Curation of prehistoric, historic, and cold war artifacts.

Site Closure Planning & Integration (SCP&I) - provides for the technical

Project Manager

Control Account Manager

Control Team Manager

Linda A. Bester

WORK SCOPE DEFINITION (Control Account)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE DEBBIE SHERBS 648-5137	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (CONTROL ACCOUNT) NDAA	13. TASK DESCRIPTION (ONE LINE) SITE CLOSURE		

14. ELEMENT TASK DESCRIPTION

management of the closure contract, acts as technical liaison between projects, develops and updates the Facility Integrated Infrastructure Closure Plan, Risk Management Plan, Manpower Plan, Make-or-Buy Technical Analysis, program/project review, and modeling and execution scenarios as needed. SCP&I is responsible to provide impacts on office and storage planning and coordination of space located on and off the Fernald site to Space Management.

Closure Project Management - External technical liaison by Director. Provides for both the Project Director and support staff as well as the administrative and technical management of integrated activities for all Site Closure departments. Manages alignment of crosscutting issues, program/project review, organizational development and performance measurement of the FEMP Closure Contract.

Engineering Services - provides support for the Configuration Management and Engineering Design functional areas, A/E support services, and A/E ERA Project contract closeout activities. It also provides administration and/or support for engineering support services, Computer Aided Design and Drafting (CADD), oversight and assessment of engineering activities, engineering technical support staff qualification, and the Technical Review Board.

Technology Programs - provides overall direction, administration and management of Fluor Fernald efforts and workscope to identify needs for, locate, acquire, evaluate, develop, demonstrate, apply and deploy advanced technologies for safer, faster, cheaper remediation including dissemination to other DOE sites. It also plans, coordinates, and administers work performed by selected Ohio universities and Historically Black Colleges and Universities/Minority Institutions Environmental Technology Consortium (HBCU/MIETC) members.

Stewardship Management - includes planning and document preparation associated with long-term stewardship of the FEMP; planning interface and documentation associated with future use of the FEMP; regulatory, stakeholder and natural resource trustee interface on stewardship and future use issues; and technical support of project on restoration and revegetation issues and the maintenance of restored and certified areas.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 3
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE DEBBIE SHERBS 648-5137	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (CONTROL ACCOUNT) NDAA	13. TASK DESCRIPTION (ONE LINE) SITE CLOSURE		


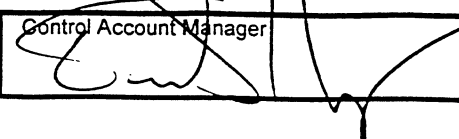
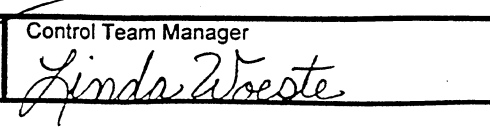
14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

None.

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 1
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE JOE SCHOMAKER 648-7500	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP#FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NDAAF	13. TASK DESCRIPTION (ONE LINE) CULTURAL RESOURCES		
<p>14. ELEMENT TASK DESCRIPTION</p> <p><u>a. ELEMENTS OF COST:</u></p> <p>Labor Materials ODCs Subcontracts</p> <p><u>b. TECHNICAL CONTENT:</u></p> <p>Compliance with Historic Preservation Law, Cultural Resource's Memorandum of Agreements, and Programmatic Agreements. Historic Preservation, HABS/HAER, Cold War, Living History and Archaeological Investigations, unexpected discoveries, artifact preservation and archiving. Interfacing with Native American Indian Tribes, government agencies and the public. Stewardship planning and Repatriation of Native American remains at Fernald.</p> <p>The National Historic Preservation Act (NHPA) of 1966 (PL98-665, as amended) requires all Federal Agencies to consider their effects on historic properties. The major provisions of the act are Sections 106 and 110. These define the scope and interest of the law and form the basis for implementing regulations that mandate Federal historic preservation activities. The NHPA defines historic preservation as "the protection, rehabilitation, restoration and reconstruction of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, or culture". Section 106 also mandates consultation. It compels Federal agencies to "take into account" the effect of their projects on historical and archaeological resources and to provide the public a reasonable opportunity to comment on such effects. Failure to protect both known and unrecorded cultural resource sites and materials can lead to criminal and civil penalties, including up to five years of imprisonment and a fine of up to \$250,000 per violation, as well as the forfeiture of all equipment and vehicles used to facilitate a violation. [ARPA and Omnibus Crime Control Act of 1984 (PL98-596)].</p>			
Project Manager 		Control Account Manager 	Control Team Manager 

WORK SCOPE DEFINITION

(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE JOE SCHOMAKER 648-7500	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP#FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NDAAF	13. TASK DESCRIPTION (ONE LINE) CULTURAL RESOURCES		

c. SCOPE OF WORK:

- Annually revise and update Cultural Resource Management Plan
- Compliance with Memorandum of Agreements and Programmatic Agreements
- Manage Cultural Resource Subcontractor
- Respond to Unexpected Discoveries of Cultural Resources
- Prepare annual reports to the State Historic Preservation Office
- Maintain Cultural Resource archive/artifacts
- Conduct Cultural Resource training
- Future Land Use
- Indian affairs
- Cultural Resource procedure writing
- Preserving and Collecting Cold War Artifacts
- Writing CRM scopes of work
- Review and coordinate changes in Cultural Resource laws
- Interface with external and internal organizations
- Coordinate all repatriation efforts of Native American remains
- Write Research Designs
- All training, travel and materials required to perform this scope
- Community Outreach, Presentations and Briefings
- Department of Interior Report to Congress
- Historic Documentation of Facility
- Environmental Assessment of CRM
- Site Environmental Report - CRM Section
- Cultural Resource Site Wide Compliance with Historic Preservation Law
- Phase I Archaeological Survey
- Phase II Archaeological Investigation
- Phase III Data Recovery
- Research Design
- Oversee Cultural Field Work
- Conduct project specific HABS/HAER investigations

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE

FEMP (DEFENSE)

2. DATE

12/01/2000

Page 3

3. WBS ELEMENT CODE

1.1.N.D

4. WBS ELEMENT TITLE/NAME

SITE CLOSURE

5. PERFORMING DIV/DEPARTMENT CODE

45

6. ORIGINATOR NAME/PHONE

JOE SCHOMAKER 648-7500

7. WBS ELEMENT MANAGER

TERRY HAGEN

8. BUDGET AND REPORTING NUMBER

EW05H3120

9. BUDGET TITLE

PROGRAM SUPPORT & OVERSIGHT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?

NEW PER CP#FY01-0115-0012-00

11. ESTIMATED START / COMPLETION DATE

12/01/00 - 12/27/09

12. TASK IDENTIFICATION (WORK PACKAGE)

NDAAF

13. TASK DESCRIPTION (ONE LINE)

CULTURAL RESOURCES

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

None.

SECTION 1

1.0 NARRATIVE

1. PROJECT TITLE: PROGRAM SUPPORT AND OVERSIGHT	2. DATE: 09/10/01	3. PBS#: 12
4. WBS ELEMENT CODE: 1.1.N.D	5. WBS ELEMENT TITLE: SITE CLOSURE	
6. CAM NAME/PHONE: TERRY HAGEN/5261	7. CAM SIGNATURE:	
8. ORIGINAL/CHANGE SCOPE/PER CP#:	9. CONTROL ACCOUNT: NDAA	

PART 4: SITE CLOSURE (NDAA)

Section 1: Cultural Resource Management (NDAAF)

1.0 NARRATIVE

1.1 OVERVIEW

Compliance with Historic Preservation Law, Cultural Resource's Memorandum of Agreements, and Programmatic Agreements. Historic Preservation, HABS/HAER, Cold War, Living History and Archaeological Investigations, unexpected discoveries, artifact preservation and archiving. Interfacing with Native American Indian Tribes, government agencies and the public. Stewardship planning and Repatriation of Native American remains at Fernald.

The National Historic Preservation Act (NHPA) of 1966 (PL98-665, as amended) requires all Federal Agencies to consider their effects on historic properties. The major provisions of the act are Sections 106 and 110. These define the scope and interest of the law and form the basis for implementing regulations that mandate Federal historic preservation activities. The NHPA defines historic preservation as "the protection, rehabilitation, restoration and reconstruction of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, or culture". Section 106 also mandates consultation. It compels Federal agencies to "take into account" the effect of their projects on historical and archaeological resources and to provide the public a reasonable opportunity to comment on such effects. Failure to protect both known and unrecorded cultural resource sites and materials can lead to criminal and civil penalties, including up to five years of imprisonment and a fine of up to \$250,000 per violation, as well as the forfeiture of all equipment and vehicles used to facilitate a violation. [ARPA and Omnibus Crime Control Act of 1984 (PL98-596)]

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1. DOE-Fernald will continue with it's Cultural Resources Program, and compliance with all Cultural Resources Statutes, Orders, and Regulations.

2. DOE-Fernald will continue with compliance of all MOA's and PA's signed with the State Historic Preservation Office.
3. FCAB will continue to take a lead role in future recommendations of Cultural Resource activities and repatriation of Native American Indian Remains.
4. DOE-HQ will continue to request information on Cultural Resources Compliance for there report to congress.
5. Regulators and Stakeholders will continue to play on active role in the management of Cultural Resource at Fernald.
6. The following Statues, Orders and Regulations will continue to drive the Cultural Resource Program:
 - Antiquities Act of 1906; Historic Sites Act of 1935
 - National Historic Preservation Act of 1966, as amended (NHPA)
 - Archaeological and Historic Preservation Act of 1974
 - American Folk life Preservation Act of 1976
 - American Indian Religious Freedom Act of 1978 (AIRFA)
 - Archaeological Resources Protection Act of 1979, as amended (ARPA)
 - Native American Graves Protection and Repatriation Act of 1990 (NAGPRA).
 - 36 CFR 60: National Register of Historic Places
 - 36 CFR 61: Procedures for Approved State and Local Government Historic Preservation Programs
 - 36 CFR 63: Determination of Eligibility for Inclusion in the National Register of Historic Places
 - 36 CFR 65: National Historic Landmarks Program
 - 36 CFR 78: Waiver of Federal Responsibilities under Section 110 of the National Historic Preservation Act
 - 36 CFR 79: Curation of Federally-Owned and Administered Archeological Collections
 - 36 CFR 800: Protection of Historic and Cultural Properties
 - 36 CFR Part 1220 "Federal Records Management
 - 43 CFR 7: Protection of Archaeological Resources
 - Executive Order 11593, Protection and Enhancement of the Cultural Environment.

1.2.2 Exclusions

- Planning and implementation for reburial of Native American Remains.
- New requirements.
- Planning for a Cultural Center/Information Center.

1.2.3 Government Furnished Equipment/Services

None

1.3 DRIVERS

1. The work scope outlined in the following section will require the use of 1 FTE over the next five years. Cultural Resource field work and archival of artifacts in support of remedial excavation are primary drivers for the Cultural Resource Program.
2. The following scenario will reduce the scope of Cultural Resources at the end of 2009.
 - All Cultural Resource Field Surveys are completed.
 - No unexpected discoveries of Cultural Resources or Human Remains.
 - Regulations, Statutes, and Orders remain the same.
 - Archival of all Historic, Cold War, and Native American artifacts takes place.

1.4 SCOPE OF WORK

1.4.1 Task #1 – Compliance and Reports

The scope of work provided by Compliance and Reports in FY01 includes the following scope:

1. Compliance with Historic Preservation Laws
Fernald Environmental Management Project has the responsibilities to continue it's compliance with Historic Preservation Law during remediation, and final land use.
 - The Cultural Resource Section (Fluor Fernald) will be responsible for continuing compliance with all Historic Preservation Laws. It will serve as primary interface with the regulators and the public regarding Cultural Resource issues.
2. The Department of Energy recognizes the cultural and scientific value of the cultural resources that exist on the properties under its management or over which it has direct or indirect control. DOE has implemented a program to protect these resources and ensure that all DOE facilities and program comply with all existing cultural resources executive orders, laws, and regulations.
 - The Cultural Resource Section will implement a program to protect antiquities, and comply with the MOA's and PA's. It will also be responsible for developing new MOA's or PA's if needed and developing new technical positions. It will serve as the primary interface with the regulators on resolving issues as necessary.
3. In the interest of protecting the nation's historical resources and monitoring development and expansion pressures, the National Historic Preservation Act of 1966 (NHPA) was enacted. As amended, the NHPA presents the most comprehensive national policy on historic preservation ever developed in the United States. Executive Order

11593, 36 CFR Part 63, "Determination of Eligibility for Inclusion in the National Register of Historic Places", and 36 CFR Part 800, "Protection of Historic and Cultural Properties", play an important role in the implementation of this act. The results of the regulations and accompanying guidance, in conjunction with NHPA, is a proactive national policy on historic preservation that specifically directs government agencies to take historic preservation into account in planning their initiatives and actions.

- The Cultural Resource Section will prepare the Annual CRM report to the State Historic Preservation Office. Included in the report (as specified in PA) all Cultural Resources Archaeological activities at the facility. The report is due July 1 of each year until closure of site.
4. DOE facility and program managers must consult with the Department of Interior concerning specific compliance requirements and cultural resource preservation planning. The Department of Interior must report to Congress on DOE facilities compliance with Historic Preservation Laws. The Department of Interior reports on DOE's :
 - Archaeological Materials and sites dating to the Prehistoric, Historic, and Echnohistoric Periods
 - Standing structures that are over 50 years of age or are important because they represent a major historical theme or era. Cultural and natural places, certain natural resources, and sacred objects that have importance for Native Americans.
 - American folk life traditions and art.
 - Cultural Resource will prepare the Department of Energy's report to DOI on all Cultural Resource activities of the Fernald Site. Report due to DOE-Washington March 1 of each year until site closure.
 5. The National Historic Preservation Act and its implementing regulation and guidance require DOE to involve and/or consult a number of external organizations, groups and stake holders. Federal agencies have specific responsibilities under Section 106 and 110 to carry out these historic preservation activities in consultation with other governmental organizations, and with organization and individuals who can be expected to be concerned about the agencies preservation activities.
 - Prepare the Cultural Resource Section to the Site's Environmental Report to include all historic preservation activities on the Fernald Site for that year.
 6. Records have historical value if they preserve a reasonable portrait of significant events in American history or culture. Historical DOE records include those reflecting significant decisions or events in energy development, regulations and management. Of special value are records related to events that generated extensive public interest or controversy. DOE historic preservation responsibilities include the

publication of various reports on Cultural Resources, and preserving these reports as the Historical Record.

- Cultural Resources will continue publication of Cultural Resource Reports as part of the historic record. Conduct historical research into records of historical value.
7. Cultural Resource Managers must follow the planning consideration whenever direct or indirect DOE activities result in ground disturbance and/or alterations to standing structures that are more than 50 years old or are important because they represent a major historical theme or ear. Managers must ensure that compliance is maintained for activities that are on DOE owned as well as non-DOE owned properties. DOE activities include day-to-day operation; new construction; Resource Conservation and Recovery Act (RCRA), and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – related cleanup actions, as well as DOE funded actions. Cultural Resource Manager should also ensure that personnel are kept informed of new amendment to cultural resource statutes. The Cultural Resource Management Plan must identify the facility strategies for preserving cultural resources as well as distributing information to all site managers.
- The Cultural Resource Section must update the CRM Plan every two years or as needed if the scope of the project has changed.
8. Cultural Resource Management program must implement existing laws and develop procedure to comply with Executive Orders, Statutes and Regulations. CRM must also establish a system for the controlled excavations, removal and protection of cultural resources during scientific and compliance-oriented field projects as required by ARPA.
- Cultural Resource will prepare procedures to comply with Executive Orders, Statutes and Regulations. Prepare technical evaluation regarding Cultural Resources.

1.4.2. Task #2 – Cultural Resource Management Surveys

The scope of work provided by Cultural Resource Management Surveys in FY01 includes the following scope:

1. Cultural Resource Management must develop a systematic program to inventory surface and sub-surface cultural resource sites at the facility according to Section 110 of the NHPA and ARPA. The CRM must ensure that professionally trained personnel are employed, and determine the need for field studies.
2. The Fernald Environmental Management Project retains a Cultural Resource Firm, under a Task Order Contract, to furnish archaeological services as needed. Management of the Sub-Contractor is done by the in-house Cultural Resource Management Section.

3. Cultural Resource Section will continue to oversee all CRM field work. The National Historic Preservation Act Section 106 requires Federal agency to "take into account" the effects of their projects on historical and archaeological resources.
4. The Historic Documentation of the facility includes all buildings and structures. It also includes all books, papers, maps, photographs, machine readable material, or other documentary materials, regardless of physical form or characteristics. Non-written materials may also contain significant historical information. Such materials include design and construction drawings, photographs of the facility, scientific and technological equipment used at the facility. In the case of buildings or technology, it may possess historical value if original in design, representative of a style or period of architecture.
5. The National Historic Preservation Act requires the Federal agency to conduct HABS/HAER Investigations on all buildings and structures included in or eligible for inclusion in the National Register of Historic Places. It compels Federal agencies to "take into account" the effects of their projects on historical resources. It also mandates consultation on such projects.
 - Cultural Resource Management will conduct all HABS/HAER Investigations on all buildings and structures included in or eligible for inclusion in the National Register of Historic Places.
6. The Phase I Survey is intended to provide a description of the archaeological resources within the project area. Sites may be identified through a combination of documentary research, informant interviews, surface reconnaissance, and subsurface listing. The goal of a Phase I Survey is to identify and record both prehistoric and historic archaeological resources within the project area. The results of the Phase I Survey are incorporated in a report meeting the standards and specifications of the Ohio Historic Preservation Office and the National Historic Preservation Act Section 106.
 - Cultural Resources will conduct and manage all Phase I Cultural Resource Management Surveys.
7. A Phase II Investigation is designed to sample the archaeological resources identified during the Phase I Survey and allow a decision to be made about significance, defined or eligibility of the site for listing in the National Register of Historic Places and/or the State Register.
 - Cultural Resources will conduct and manage all Phase II Cultural Resource Management Investigations.
8. Phase III Investigation are intended to mitigate the adverse effects to significant sites through data recovery. Data recovery investigations generally involve large-scale excavation of archaeological material from a site. Phase III Investigation must be designed on a case-by-case basis in consultation with the Ohio Historic Preservation Office.
 - Cultural Resources will conduct and manage all Data Recovery Projects.

9. Cultural Resource Management Designs will include the following elements: Cultural Resource Management personnel are employed to prepare cultural resource management plans; determine the need for and scope of field studies; carry out (in designs) field, laboratory, and archival studies; and evaluate the potential National Register significance of identified cultural resource. Include in the design, Federal/State agency officials, the SHPO, American Indian Tribes, the ACHP, interested organizations and the general public.
10. The Department of Energy recognizes the cultural and scientific value of the cultural resources that may exist on the properties under its management or over which it has direct or indirect contact. It is required under the NHPA Section 106.11 to develop a procedure for Unexpected Discoveries of Cultural Resources.
 - Cultural Resource Management will manage all unexpected discoveries.

1.4.3 Task #3 – Collection and Preservation

The scope of work provided by Collection and Preservation in FY01 includes the following scope:

1. The definition of historic preservation includes the protection, rehabilitation, restoration and reconstruction of districts, sites, buildings, structures, and objects significant in American Cultural. Responsibilities include a process of consultation with a variety of interested parties external to DOE.
2. Historical value can be found and preserved in the following cold war artifacts: Presidential or White House Correspondence; Correspondence with Members of Congress; Internal correspondence with heads of Department elements; Notes or records of meeting or telephone conversations by heads of department elements; memories and transcripts of interviews with officials, participants, and observance of department events and programs; background material in significant policy or operational studies, office dairies and logs; Environmental monitoring records; accident and incident reports; construction and modification reports; photographs of buildings and landscapes on or near DOE sites; material shipment records; cost and financial data; records of material cultural objects and artifacts.
3. Curation needs must be considered at all stages of archaeological investigations, including planning, survey, analysis, processing, cataloging and conservation. The Federal Agency must adequately provide for the curation of material remains (36 CFR 79).

1.4.4 Task #4 – Cultural Resource Management Training and Outreach Programs

The scope of work provided by Cultural Resource Management Training and Outreach Programs in FY01 includes the following scope:

1. The National Historic Preservation Act requires training of Cultural Resource Personnel and sub-contractors, to ensure that historic preservation is fully integrated into ongoing programs and missions of Federal agencies.
2. The NHPA and its implementing regulations and guidance requires DOE to involve and/or consult a number of internal and external organizations. Federal agencies have specific responsibilities under Section 106 and 110 to carry out their historic preservation activities in consultation with other government organizations and with organizations and individuals who can be expected to be concerned about the agencies preservation activities.
3. Under the regulations implementing the Archaeological Resource Protection Act, Indian Tribes must be notified prior to excavation that may result in harm to any Indian Tribes religious or cultural sites on federal land. DOE must coordinate their implementation of Section 110 (NHPA) to assure that the treatment and use of such properties occur in a manner consistent with the intend of the American Indian Religious Freedom Act and DOE 1230.2 American Indian Tribal Government Policy. Also the Native American Graves Protection and Repatriation Act applies.
4. The NHPA and its implementing regulations and guidance requires DOE to involve persons, and give them an opportunity to comment on DOE's preservation activities or decisions.
5. Negotiations with Native American Tribes and Groups on Repatriation at Fernald. Develop a detailed Work Plan outlining requirements for re-interment process. Prepare a written agreement, among DOE and Federally Recognized Tribes and/or Groups. Preparation of area for re-interment of remains.

1.4.5 The Plan

The plan for performing the above Cultural Resource Management is to continue the above services until services are modified as follows:

1. Cultural Resource will continue its subcontractor for CRM field work until 2006. The remaining field work scope will be absorbed by CRM Administration.
2. Cultural Resource will eliminate one FTE by FY2008, based on the completion of all CRM field work and artifact curation.
3. Cultural Resource will continue with administration support until FY2010.

1.4.6 The Quantification

The quantification for Cultural Resource management is based indirectly on the drivers outlined in section 1.3. The resource requirements for this and the correlation with site manpower is shown in the following table:

	01	02	03	04	05	06	07	08	09	10
CRM Management	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0
CRM, Staff	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0 1.0	0 1.0	0
Subcontractor	40,000	18,000	18,000	35,000	20,000	0	0	0	0	0

R1-F12-013

SECTION 1

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1ND01 CULTURAL RESOURCES

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007	xxx	xxx																		
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
704 Silos AWR Summary	10/02/2000	10/23/2003																				
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008	xxx	xxx	xxx	xxx	xxx	xxx														
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				
Environmental		Environmental Protection Mgr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Project Management		Tech/Program Support Rep.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	
Sheet Totals:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	

SECTION 1

3.0 ESTIMATE

NDAAF

CULTURAL RESOURCES

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 10-Sep-01
PROJECT MGR: JOE SCHOMAKER
CAM: TERRY HAGEN
PREPARED BY: TRACY BRAUN
FISCAL YEAR: FY01 - FY10

PBS: 12
WBS: 1.1.N.D.
CTRL ACCT: NDAAF
CHARGE NO: NDAAF
COMMENT NO: 12-013, 12-060

Resource:	ENPMGR	ENVIR PROTECTION MGR	Class:	EOC:	LABOR	
Res Dept:		Overtime:		SAL		
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05
Yr Hours:		1,326.0	0.0	0.0	0.0	0.0
Cum Hours:		1,326.0	1,326.0	1,326.0	1,326.0	1,326.0
Yr Total Cost:		83,604	0	0	0	0
Cum Total Cost:		83,604	83,604	83,604	83,604	83,604

Resource:	ODCTRL	TRAVEL RESOURCE	Class:	EOC:	ODC	
Res Dept:		Overtime:		ODC		
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05
Yr Units:		2,848.0	4,906.0	2,058.0	2,058.0	2,058.0
Cum Units:		2,848.0	7,754.0	9,812.0	11,870.0	13,928.0
Yr Total Cost:		2,848	5,038	2,171	2,231	2,294
Cum Total Cost:		2,848	7,886	10,057	12,289	14,582

Resource:	SERVSUB	SUBS	Class:	EOC:	SUBCONTRACTORS	
Res Dept:		Overtime:		SUB		
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05
Yr Units:		40,000.0	18,000.0	18,000.0	35,000.0	20,000.0
Cum Units:		40,000.0	58,000.0	76,000.0	111,000.0	131,000.0
Yr Total Cost:		40,000	18,486	18,985	37,949	22,292
Cum Total Cost:		40,000	58,486	77,471	115,420	137,713



Resource:	TPSREP	TECH/PROG SUPT REP	Class:	EOC:	LABOR	
Res Dept:		Overtime:		SAL		
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05
Yr Hours:		0.0	1,747.0	1,747.0	1,747.0	1,747.0
Cum Hours:		0.0	1,747.0	3,494.0	5,241.0	6,988.0
Yr Total Cost:		0	95,547	101,203	107,170	113,523
Cum Total Cost:		0	95,547	196,750	303,921	417,444

S\EST_FORMS\ndaaf

INCLUDES ESCALATION COSTS

GRAND TOTALS:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Cum Hours:	1,326.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	0.0
Yr Total Cost:	1,326.0	3,073.0	4,820.0	6,567.0	8,314.0	10,061.0	11,808.0	13,555.0	15,302.0	15,302.0
Cum Total Cost:	126,452	119,071	122,359	147,351	138,110	123,648	132,700	139,836	155,294	0
	126,452	245,524	367,883	515,234	653,344	776,991	909,691	1,049,527	1,204,822	1,204,822

CAM  For: T. Hagen CONTROL TEAM  Linda Weste

SECTION 1

4.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: Site Closure		Date: 3/9/01		PBS Number: 12		Total Baseline Dollars (Minimum Case): \$20,851,288	
CAM:		Date:		WBS Number: 1.1.N.D			
Project Task		Risk and/or Opportunity		Control Account Number: NDAA			
		Potential Impact					
		Internal Or External Driver	Impact Cost \$ (Maximum Case)	Risk Impact Level	Risk Probability %	Probable Cost \$ (Likeliest Case)	Risk Handling Strategy
NDAAF	Unexpected discoveries onsite	Internal	\$400,000	2	75	5	3 None
Cultural Resource Management (NDAAF)	Critical Project slips 1 year	Internal	\$79,600	2	50	3	2 Accept
NDAAJ	Critical Path Projects slip out 1 year	Internal	\$200,000	3	50	3	4 Accept
NDAAK	Critical Project slips 1 year	Internal	\$159,200	3	50	3	4 Accept
NDAAU	CADD system failure	Internal	\$1,000,000	3	10	1	2 Accept
Engineering (NDAAU)	Critical Path Project slip out 1 year	Internal	\$500,000	3	50	3	4 Accept
NDAAV	None						
Technology Programs (NDAAV)	Critical Path Project(s) slip out 1 year	Internal	\$160,000	3	50	3	4 Accept
Closure Project Management (NDAAJ)	Serious safety violation or accident	Internal	\$1,000,000	3	10	1	2 None
Closure Project Management (NDAAJ)							
Total:			\$3,498,800			\$1,049,400	
NDAAK	Natural Resource Trustees pursue legal action against DOE delays of settlement	External	\$2,000,000	3	5	1	2
Stewardship (NDAAK)	Implement the Ground Water Education Project	External	\$5,000,000	3	5	1	2

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 1
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE DENNIS NIXON 648-4800	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NDAAJ	13. TASK DESCRIPTION (ONE LINE) SITE CLOSURE PLANNING AND INTEGRATION		

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontract:
 TP Labor
Material
ODCs

b. TECHNICAL CONTENT:

Site Closure Planning & Integration (SCP&I) is responsible for technical baseline development, participation in change control technical analysis, risk management planning, manpower planning, and Program/Project reviews for continuous technical integration (including supporting technical liaison between Fluor Fernald Inc. and external Agency, Regulatory and Stakeholder communities) and performance measurement of the FEMP Closure Contract. SCP&I is also responsible for long-range, life cycle space management as part of the overall Fluor Fernald strategy to plan the use, acquisition, reuse, and disposal of physical assets, including real property, as valuable national resources.

c. SCOPE OF WORK:

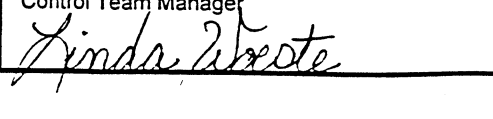
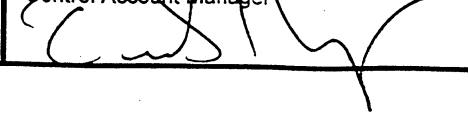
Technical Management of the Closure Contract.

- Maintenance of an Integrated Remedial Priorities List.
- Status progress against the Technical Baseline.
- Coordinate revision of the Closure Contract Cost and Schedule Baseline as needed in response to changing conditions.
- Sponsor an ongoing re-evaluation of the baseline to identify opportunity for streamlining schedule improvements and cost efficiency.
- Provide liaison to groups responsible for DOE budget scenario support.

Project Manager

Control Account Manager

Control Team Manager



WORK SCOPE DEFINITION
(Work Package)

Page 2

1. PROJECT TITLE

FEMP (DEFENSE)

2. DATE

12/01/2000

3. WBS ELEMENT CODE

1.1.N.D

4. WBS ELEMENT TITLE/NAME

SITE CLOSURE

5. PERFORMING DIV/DEPARTMENT CODE

45

6. ORIGINATOR NAME/PHONE

DENNIS NIXON 648-4800

7. WBS ELEMENT MANAGER

TERRY HAGEN

8. BUDGET AND REPORTING NUMBER

EW05H3120

9. BUDGET TITLE

PROGRAM SUPPORT & OVERSIGHT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?

NEW PER CP# FY01-0115-0012-00

11. ESTIMATED START / COMPLETION DATE

12/01/00 - 12/27/09

12. TASK IDENTIFICATION (WORK PACKAGE)

NDAAJ

13. TASK DESCRIPTION (ONE LINE)

SITE CLOSURE PLANNING AND INTEGRATION

14. ELEMENT TASK DESCRIPTION

- Participate in project planning and bidding process to promote consistency with the Accelerated Remediation philosophy.

Coordination of Technical Integration Planning Between Projects

- Identify all points of technical and construction interface between projects.
- Develop integration strategy/plan (using graded approach) for all identified points of interest.

- Maintain sitewide integration models including Facility Integrated Infrastructure Closure Plan debris, waste, soil model, manpower plan, and others as required.

Technical Liaison with Regulatory Community - Facilitate communication and early issue identification.

Technical Liaison with Fernald Citizens Advisory Board and Community Reuse Organization - Facilitate Resolution of "Cross-Cutting" Issues/Programs as Assigned.

Support Technical Information Requirements of Media and Stakeholder Communication Efforts by CPM.

Conduct Periodic Critiques of Existing Operation, Projects and Systems for Effectiveness. Includes periodic review of distribution of organizational responsibilities for effectiveness enhancements.

Sponsor and manage the Risk Management Program and Reports - Assessment, mitigation and contingency planning, and budget decision management.

Manage technical analysis and preliminary approval process for change control.

Develop and maintain the detailed Basis of Estimate defining the work of the Closure Contract.

Sponsor the Facility/Land Use Authority for Life Cycle Analysis, Strategic Planning and physical Configuration Management of project facilities.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE

FEMP (DEFENSE)

2. DATE

12/01/2000

Page 3

3. WBS ELEMENT CODE

1.1.N.D

4. WBS ELEMENT TITLE/NAME

SITE CLOSURE

5. PERFORMING DIV/DEPARTMENT CODE

45

6. ORIGINATOR NAME/PHONE

DENNIS NIXON 648-4800

7. WBS ELEMENT MANAGER

TERRY HAGEN

8. BUDGET AND REPORTING NUMBER

EW05H3120

9. BUDGET TITLE

PROGRAM SUPPORT & OVERSIGHT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?

NEW PER CP# FY01-0115-0012-00

11. ESTIMATED START / COMPLETION DATE

12/01/00 - 12/27/09

12. TASK IDENTIFICATION (WORK PACKAGE)

NDAAJ

13. TASK DESCRIPTION (ONE LINE)

SITE CLOSURE PLANNING AND INTEGRATION

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

Operations of Project Controls Systems.

SECTION 2

1.0 NARRATIVE

PROJECT TITLE: PROGRAM SUPPORT AND OVERSIGHT	2. DATE: 09/10/01	3. PBS#: 12
4. WBS ELEMENT CODE: 1.1.N.D	5. WBS ELEMENT TITLE: SITE CLOSURE	
6. CAM NAME/ PHONE: TERRY HAGEN/5261	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: NDAA	

PART 4: SITE CLOSURE (NDAA)

Section 2: Site Closure Planning & Integration (NDAAJ)

1.0 NARRATIVE

1.1 OVERVIEW

Site Closure Planning & Integration (SCP&I) is responsible for technical baseline development, participation in change control technical analysis, risk management planning, manpower planning, and Program/Project reviews for continuous technical integration (including supporting technical liaison between Fluor Fernald Inc. and external Agency, Regulatory and Stakeholder communities) and performance measurement of the FEMP Closure Contract. SCP&I is also responsible for long-range, life cycle space management as part of the overall Fluor Fernald strategy to plan the use, acquisition, reuse, and disposal of physical assets, including real property, as valuable national resources.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1. The Closure Contract incorporates DOE Orders and Directives as listed in Section J attachment 2 and include:
 - DOE O 224.1 requires a Performance-Based Business Management Process.
 - DOE O 413.3 requires Program and Project Management for the acquisition of Capital Assets.
 - DOE O 430.1A requires life cycle asset management (LCAM) for facilities.
 - DOE requires an Integrated Planning, Accountability and Budgetary System (IPABS) for performance management.
 - DOE-OH Procedure OH-G-540-28 requires make-or-buy analyses.
2. Also specific plans/reports are required for compliance with the Closure Contract as listed in Section J Attachment 3 and include:
 - Make or Buy Plan
 - Risk Management Plan
 - Quarterly Critical Analysis Reports

- Baseline Summary and Status Reports
 - FY ETC Analysis Reports
3. DOE and Fluor Fernald management relies on the organization for data consistency, data flow hierarchy, external contact and maintenance of internal integration relationships.
 4. Soil & Debris modeling efforts need to precede the activity of filling the OSDF.
 5. Projects/Programs will continue to share information and changes in approach. Data management resource access must remain virtually unchanged. This is especially important for maintenance of models that rely on accurate, timely data. The following data sources are critical:
 - Above Grade D&D Debris Quantities (publish bulk CY by building by complex by OU3 debris category and maintain cumulative totals by complex by category for: a) generated to date, b) transferred to date, and c) placed to date). Source: D&D or WAO for quantities by building and WAO for up to date stockpile quantities.
 - Above Grade D&D Debris Bulking Factors (bulking factors used to bulk up unbulked cubic feet or yards and to unbulk bulk cubic feet or yards). Source: D&D.
 - At-And-Below Grade Material Volumes (Banked cubic yards of all at and below grade quantities remaining to be excavated - both above and below OSDF WAC by category/description by area by sector). Source: Soils.
 - Sitewide Waste Strategic Planning Non-D&D Waste Streams (Below OSDF WAC non-D&D waste planned to be dispositioned in the OSDF by type/OU3 category by fiscal quarter). Source: WGS.
 - OSDF Soil and Debris Ratios and Compaction Factors (Soil to Debris ratios to be used for planning purposes and compaction factors to be used to convert unbulked cubic yards of above grade debris to in-place cubic yards and banked cubic yards of at and below grade Category 1-5 material to in-place cubic yards). Source: OSDF Engineering.
 - Project/Program managers develop and input their manpower plans into the Manpower Planning System software package. They also maintain Risk Management data sheets for their risks and opportunities.
 - Space Management maintains an accurate count of total seats and seats available as well as Project/Program managers forecasts of needs changes.
 6. Projects/Programs will continually challenge technical baseline to find process improvements. FFI will prepare Make-or-Buy analyses as required in the Closure Contract.
 7. DOE O 413.3 requires Program and Project Management for the acquisition of Capital Assets. Space Management will maintain Capital Asset management data and drawings for real property.

8. DOE O 430.1A requires Life Cycle Asset Management (LCAM) for facilities. Each Project/Program and DOE will actively participate in the development and maintenance of an integrated, long-range space management plan.
9. DOE-FEMP requires optimized occupancy of owned and leased facilities. Space management will manage short allocation of occupancy to achieve this requirement in balance with the long-range space management plan.
10. Material budgets are based on an average rate as established by Project Controls. This group continues to have average office supply needs.

1.2.2 Exclusions

1. The Project Controls System, Manpower Planning System and Estimating Services Risk Estimating Simulation Systems, for baseline management and Change Control, are operated by FF Project Controls Department.
2. Projects/Programs maintain the databases of information necessary for input to SCP&I modeling of project execution, staffing, and space.
3. The Space Management Information Database and planning model is maintained and operated by Facilities Infrastructure Support- Space Management.

1.2.3 Government Furnished Equipment/Services

1. None.

1.3 DRIVERS

1. Federal and State regulation and DOE Orders/Directive changes
2. DOE, Regulator and Stakeholders meeting schedules and information/model scenario requests
3. FF Project/Program execution schedule changes
4. Risk Management mitigation option development and execution
5. Make or Buy plan development and execution
6. Facility & Project Support, Infrastructure Services Facility Support execution
7. Facility & Project Support, Facility Projects execution

1.4 SCOPE OF WORK

1.4.1 Task #1 - Support Technical Liaison

The scope of work provided by Support Technical Liaison in FY01 includes the following scope:

1. Support CPM Director in technical liaison with Regulatory Community, technical information requirements of media and stakeholder communication and Fernald Citizens Advisory Board (CAB), Community Reuse Organization (CRO) and other local community stakeholders. Develop technical and performance status detail document for six monthly meetings. Provide input and scenario modeling as requested by Fluor Fernald LT
2. Support CPM Director external and internal operations feedback as related to accelerated approach to Strategic Planning. Monthly meeting

The plan for performing the above scope is to continue the above services until services are modified as follows:

CPM support efforts are reduced by half in FY-03 as the project management culture matures. It reduces in half again in FY-06 when WPRAP and WGS operations are complete and are again reduced by half in FY-08 after Silos is completed. Residual SCP&I effort will be transitioned to the other oversight departments in FY-9.

The quantification for Support Technical Liaison is based primarily on Fluor Fernald, Inc. closure project maturity and stakeholder communication needs. The resource requirements summary for this is shown in the following table:

R1- F12- 012		01	02	03	04	05	06	07	08	09	10
	Manager										
	T/P Sup. Rep.	0.21	0.21	0.1	0.1	0.1	0.05	0.05	0.05	0.0	0.0
	T/P Sup. Rep.	0.14	0.34	0.14	0.14	0.14	0.1	0.1	0.03	0.0	0.0
	Clerk	0.17	0.15	0.15	0.15	0.15	0.08	0.08	0.04	0.0	0.0
	TOTAL FTE	0.52	0.7	0.39	0.39	0.39	0.23	0.23	0.12	0	0
	ODCs	\$2000	\$2000	\$1000	\$1000	\$1000	\$750	\$750	\$500	0	0
	Materials	\$5000	\$5000	\$2500	\$2500	\$2500	\$1500	\$1500	\$500	0	0

1.4.2 Task #2 - Sitewide Integration

The scope of work provided by Sitewide Integration in FY01 includes the following scope:

1. Participate in sitewide planning and bidding processes to promote consistency with the Closure Contract remediation philosophy. Monthly meeting. Analyze cost/benefit impacts of options in the development and subsequent annual reviews of the Make-or-Buy plan.
2. Support Technical Integration planning between and amongst projects and maintain a Remedial Priorities List. Provide input and scenario modeling as requested by Fluor Fernald Leadership. Develop integration strategy/plan for all identified points of interest.
3. Manage technical analysis and preliminary approval process for Change Control decision making to ensure consistency with Closure Contract. Sponsor ongoing re-evaluation of strategic plans and technical

- management of the Closure Contract baseline as needed in response to changing conditions. Participate on Core Team evaluating all types of changes, including Make-or-Buy decisions, to provide recommendations to Leadership. Provide technical coordination of all changes impacting the baseline including contractual requests for equitable adjustments. Provide input in support of Core Team monthly meeting.
4. Balance Strategic Plan to available funds. Provide recommendations on work priorities to utilize available funds to maximize closure contract completion. Provide input in support of monthly meeting.
 5. Develop and Maintain the Site Closure plan Basis of Estimate Document. Provide annual updates as Addendum's compiled from accepted Change Proposals.
 6. Conduct monthly Critiques of existing Operations, Projects and Systems for effectiveness in support of the Quarterly Critical Analysis Reports. Provide monthly report of analysis.

The plan for performing the above scope is to continue the above services until services are modified as follows:

Integration and site management efforts increase slightly in FY-02 to implement the new management culture but are reduced by half in FY-03 after the culture is in place. Efforts again reduce by half in FY-06 after WPRAP and WGS operations are complete and are reduced by half again in FY-08 after Silos is completed. Residual SCP&I effort will be transitioned to the other oversight departments in FY-9.

The quantification for Sitewide Integration is based primarily on Fluor Fernald, Inc. closure project maturity. The resource requirements summary for this is shown in the following table:

R1- F12- 012		01	02	03	04	05	06	07	08	09	10
	Manager	0.38	0.38	0.15	0.15	0.15	0.15	0.1	0.05	0.0	0.0
	T/P Sup. Rep.	1.41	1.61	0.75	0.5	0.5	0.3	0.3	0.1	0.0	0.0
	Clerk	0.17	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.0	0.0
	TOTAL FTE	1.96	2.09	1.0	0.75	0.75	0.55	0.5	0.2	0	0

1.4.3 Task #3 - Risk Management Planning

The scope of work provided by Risk Management Planning in FY01 includes the following scope:

1. Sponsor and manage the risk management program. Coordinate Project/Program specific risk identification, analysis and mitigation alternatives planning in Quarterly reports. Develop and maintain the FEMP Closure Contract Risk Management Plan by annual updates.

Support preparation of Change Proposals implementing risk mitigation and risk contingency activities. Provide risk management input to Quarterly Critical Analysis Report. Provide mid-year and annual sitewide review and analysis reports. Provide annual input to Risk Estimating process using Crystal Ball software

2. Perform risk assessments/risk mitigation of issues/concerns that directly impact the Closure Contract approach and manage the application of Risk Budget through the change control process.

The plan for performing the above scope is to continue the above services until services are modified as follows:

SCP&I efforts to manage project risks will increase significantly in FY-02 until a complete Risk Management Plan is approved and implemented. Efforts are reduced by half in FY-04 after OSDF & Soils are back in operation and again reduced by half in FY-06 after WPRAP and WGS operations are complete. Risk management efforts are again reduced by half in FY-08 after Silos is completed. Residual SCP&I effort will be transitioned to the other oversight departments in FY-9.

The quantification for Risk Management Planning is based primarily on Fluor Fernald, Inc. closure project maturity. The resource requirements summary for this is shown in the following table:

R1- F12- 012		01	02	03	04	05	06	07	08	09	10
	Manager	0.14	0.2	0.05	0.05	0.05	0.05	0.05	0.05	0.0	0.0
	T/P Sup. Rep.	0.6	0.75	0.6	0.3	0.3	0.15	0.15	0.07	0.0	0.0
	Clerk	0.1	0.2	0.1	0.05	0.05	0.02	0.02	0.01	0.0	0.0
	TOTAL FTE	0.84	1.15	0.75	0.4	0.4	0.22	0.22	0.13	0	0

1.4.4 Task #4 - Organizational Infrastructure Planning

The scope of work provided by Organizational Infrastructure Planning in FY01 includes the following scope:

1. Provide an organizational infrastructure that is primarily focused on the success of the Closure Contract. Coordinate the manpower planning process by review of the Manpower Planning System every 6 months. Support the Site Staff Optimization Planning and Organizational Development management process by modeling impacts of staff options as considered.

The plan for performing the above scope is to continue the above services until services are modified as follows:

SCP&I effort at optimizing the organizational infrastructure are reduced by half in FY-04 after OSDF & Soils are back in operation and again reduced by half in FY-06 after WPRAP and WGS operations are complete. Efforts are again reduced by half in FY-08 after Silos is completed. Residual SCP&I effort will be transitioned to the other oversight departments in FY-9.

The quantification for Organizational Infrastructure Planning is based primarily on Fluor Fernald, Inc. closure project maturity. The resource requirements summary for this is shown in the following table:

R1- F12- 012		01	02	03	04	05	06	07	08	09	10
	Manager										
	T/P Sup. Rep.	0.05	0.05	0.05	0.03	0.03	0.03	0.03	0.03	0.0	0.0
	T/P Sup. Rep.	0.2	0.3	0.2	0.1	0.1	0.05	0.05	0.05	0.0	0.0
	Clerk	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.0	0.0
	TOTAL FTE	0.27	0.37	0.27	0.15	0.15	0.09	0.09	0.09	0	0

1.4.5 Task #5 - Planning Modeling

The scope of work provided by Planning Modeling in FY01 includes the following scope:

1. Maintain sitewide integration models including Closure Contract Work Scope Performance Sequencing Model (Model Execution Schedule), and Integrated Soil/Debris/Waste Quantities Model. Publish or distribute model reports on as needed basis. Develop and maintain Model Execution Schedule illustrating the Closure Contract status and annually provide six model scenarios of potential future execution options. Maintain coordination of all on-site disposition quantities with Soils, OSDF, WAO, and WGS. Update, maintain, and improve the Soil & Debris Model to maximize its utility for site planning purposes. Provide Soil & Debris Model summary reports for all active scenarios to Soils, OSDF, and WGS. Maintain Closure Planning OSDF construction forecasting model. Provide OSDF Engineering detailed D&D and non-D&D on-site disposition planning assistance. Maintain and publish the Composite Site Data Report quarterly or as appropriate. Distribution includes D&D, Soils, OSDF, WGS, WAO, Engineering.
2. Provide liaison to groups responsible for DOE Budget "What If scenarios" and support DOE involvement for scenarios tied to Congressional Appropriations. Annually provide the Integrated Priority List, 2-year fiscal projections and other requested budget analysis assistance, including three drafts and revision iterations, in support of DOE Budget Request. Annually support DOE submission of Limited Fall Budget Update including two draft and revision iterations. Annually support DOE submission of spring Internal Review Board presentation of DOE OFO to DOE EM.

The plan for performing the above scope is to continue the above services until services are modified as follows:

While the OSDF is shutdown there will be little soil & debris modeling except to develop a plan for restart. After restart in FY-04, extensive soil & debris modeling will be required for about 2 years until the OSDF, Soils and D&D are well coordinated and no modeling is required after D&D completes in FY-07. SCP&I effort modeling scenarios for planning the work will be reduced by half in FY-04 after OSDF & Soils are back in operation and again reduced by half in FY-06 after WPRAP and WGS operations are complete. The scenario planning efforts are minimal after Silos is completed in FY-08.

The quantification for Planning Modeling is based primarily on Fluor Fernald, Inc. closure project maturity. The resource requirements summary for this is shown in the following table:

R1- F12- 012		01	02	03	04	05	06	07	08	09	10
	Manager	0.26	0.15	0.05	0.05	0.05	0.05	0.03	0.03	0.0	0.0
	T/P Sup. Rep.	1.8	0.8	0.5	1.2	1.1	0.8	0.8	0.4	0.0	0.0
	Clerk	0.1	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL FTE	2.16	1.0	0.55	1.25	1.15	0.85	0.83	0.43	0	0

1.4.6 Task #6 - Facility and Land Use Planning

The scope of work provided by Facility and Land Use Planning in FY01 includes the following scope:

1. Sponsor the Facility and Land Use Authority. Annually review and maintain the FLUA Procedure ED 12-5005 for management and control of physical configuration of project facilities. Includes FLUA Committee appointments of representatives from all Projects/Programs. At least quarterly or when necessary, coordinate updates to the FIICP and Baseline changes through the FLUA process including holding FLUA committee meetings. Quarterly review and insure the Site Master Plot Plan and associated infrastructure documents are aligned with the Closure Contract Master Schedule and Baseline. In quarterly reviews, support integration of the Closure Contract baseline into the Utilities Integration strategic plan. In quarterly reviews, support integration of the Closure Contract baseline into Transportation (Site roads and parking lots) and Security planning.
2. Annually review, maintain and insure Closure Contract alignment with the FEMP Facility Integrated Infrastructure Closure Plan (FIICP). The systematic management of physical assets shall be integrated in a seamless process with the Closure Contract basis of estimate through the duration of the life cycle of each asset during the Closure Contract.

The FIICP incorporates Strategic, long range planning for functional relocations needed to vacate FEMP buildings in advance of D&D and support near term relocation needs selection and recommendations to FFI LT. Strategic planning for facility needs to help in decision-making regarding near term facility occupancy authorization as well as facility shutdown and demolition planning. Life-cycle (LCAM) planning for all FEMP onsite and offsite buildings and trailers including future office and functional group space needs. This supports maintenance of a facility database for use by DOE FIMS along with FF Engineering, Drafting and Facility Management to accomplish value engineering of facility and infrastructure life cycle decisions.

The plan for performing the above scope is to continue the above services until services are modified as follows:

The effort for facility and land use decision integration will increase somewhat due to shutdown of OSDF & Soils projects until they are restarted again in FY-04. Effort will be minimized in FY-06 after WPRAP is completed, Soils/OSDF has been in renewed operation for two seasons, Silos has started final waste processing and final D&D projects have relocated the last functions from existing buildings. Residual facility and land use integration efforts will be absorbed by other programs in FY-06.

The quantification for Facility and Land Use Planning is based primarily on Fluor Fernald, Inc. closure project maturity. The resource requirements summary for this is shown in the following table:

R1- F12- 012		01	02	03	04	05	06	07	08	09	10
	Manager	0.03	0.05	0.05	0.03	0.03	0.02	0.0	0.0	0.0	0.0
	T/P Sup. Rep.	0.14	0.2	0.14	0.14	0.14	0.1	0.0	0.0	0.0	0.0
	Clerk	0.02	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL FTE	0.19	0.3	0.19	0.17	0.17	0.12	0	0	0	0

SECTION 2

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1ND02 SITE CLOSURE PROGRAM PLANNING & INTEGRA

DRIVERS	START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
301 OSDF Summary Schedule	04/01/2004	12/23/2009																									
411 AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
502 WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
601 Soils Excavation Project Summary	10/01/2003	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
704 Silos AWR Summary	10/02/2000	10/23/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x											
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
801 Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx												
1001 Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
1101 Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
Project Management	Tech/Program Support Rep.		78.40	4	4	4	4	5	5	5	5	5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.5	1.5	1.5	
Administration	Clerks		10.20	0.2	0.4	1	1	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	
Project Management	Program Mgr.		4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sheet Totals:			92.60	5.20	5.40	6.00	6.00	5.50	5.50	5.50	5.50	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	2.60	1.70	1.70	1.70	1.70	

MPS #	1ND02	SITE CLOSURE PROGRAM PLANNING & INTEGRATION

Sheet Totals:

SECTION 2

3.0 ESTIMATE

NDAAJ

PROGRAM PLANNING & INTEGRATION

DATE: 10-Sep-
PROJECT MGR: DENNIS NIXON
CAM: TERRY HAGEE
PREPARED BY: TRACY BRAUN
FISCAL YEAR: FY01 - FY10

**Estimate Support Worksheet
for Activity Based Estimating
(1 FTE equals 1747 hours)**

INCLUDES ESCALATION COSTS

Resource: TPSREP
Res Dept: TECH/PROG SUPT REP
Overtime: EOC: SAL

Class:

LABOR

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	5,808.0	8,735.0	4,018.1	4,018.1	4,018.1	2,620.5	2,620.5	1,222.9	0.0	0.0
Cum Hours:	5,808.0	14,543.0	18,561.1	22,579.2	26,597.3	29,217.8	31,838.3	33,061.2	33,061.2	33,061.2
Yr Total Cost:	301,784	477,735	232,768	246,492	261,104	181,931	197,228	97,011	0	0
Cum Total Cost:	301,784	779,519	1,012,287	1,258,779	1,519,882	1,701,813	1,899,041	1,996,052	1,996,052	1,996,052

GRAND TOTALS:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	8,345.4	9,608.5	4,542.2	4,542.2	4,542.2	2,969.9	2,969.9	1,397.6	0.0	0.0
Cum Hours:	8,345.4	17,953.9	22,496.1	27,038.3	31,580.5	34,550.4	37,520.3	38,917.9	38,917.9	38,917.9
Yr Total Cost:	471,216	506,889	250,419	265,069	280,664	195,665	211,974	104,597	0	0
Cum Total Cost:	471,216	978,106	1,228,524	1,493,593	1,774,257	1,969,922	2,181,896	2,286,493	2,286,493	2,286,493

CAM

CONTROL TEAM

Ver: T. Hagen

Jinda Wente

SECTION 2

4.0 RISK PLAN

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WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE

FEMP (DEFENSE)

2. DATE

12/01/2000

Page 1

3. WBS ELEMENT CODE

1.1.N.D

4. WBS ELEMENT TITLE/NAME

SITE CLOSURE

5. PERFORMING DIV/DEPARTMENT CODE

45

6. ORIGINATOR NAME/PHONE

ERIC WOODS 648-5268

7. WBS ELEMENT MANAGER

TERRY HAGEN

8. BUDGET AND REPORTING NUMBER

EW05H3120

9. BUDGET TITLE

PROGRAM SUPPORT & OVERSIGHT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?

NEW PER CP# FY01-0115-0012-00

11. ESTIMATED START / COMPLETION DATE

12/01/00 - 12/27/09

12. TASK IDENTIFICATION (WORK PACKAGE)

NDAAK

13. TASK DESCRIPTION (ONE LINE)

STEWARDSHIP PLANNING

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontract
Material
ODCs

b. TECHNICAL CONTENT:

Stewardship Management contains four seven primary functions that will be discussed in this plan: 1. Long-term Stewardship Planning; 2. Future Use Planning; 3. Regulatory and Natural Resource Trustee Interface; 4. Technical Interface with Soils and Disposal Facility Project (SDFP); 5. Preparation of Perimeter Areas for Restoration; 6. Collection of Baseline and Reference Site Data and 7. Requisition of Deer Management Consultant. These four primary functions are summarized below and are outlined in greater detail in the last section of this Narrative Plan. The scope of the Cultural Resource Management Program is contained in the Stewardship Management organization, but is outlined in a separate Narrative Plan.

c. SCOPE OF WORK:

Stewardship Management contains seven primary functions: 1. Long-term Stewardship Planning; 2. Future Use Planning; 3. Regulatory and Natural Resource Trustee Interface; 4. Technical Interface with Soils and Disposal Facility Project (SDFP); 5. Preparation of Perimeter Areas for Restoration; 6. Collection of Baseline and Reference Site Data, and 7. Acquisition of a Deer Management Consultant. These seven primary functions are outlined in greater detail in the Closure Plans for Stewardship Management and Cultural Resource Management. The scope for Cultural Resource Management is in a separate scope

Project Manager

Control Account Manager

Control Team Manager

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE ERIC WOODS 648-5268	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NDAAK	13. TASK DESCRIPTION (ONE LINE) STEWARDSHIP PLANNING		

14. ELEMENT TASK DESCRIPTION

due to the independence of their day to day activities.

Long-term Stewardship (LTS) Planning: Includes the preparation of plans and documents regarding future LTS requirements, serving as primary interface with regulators and stakeholders, integrating with other Fluor Fernald organization regarding LTS planning issues, and managing subcontracts/university contracts focused on LTS approaches and planning.

Future Use Planning for FEMP: Includes planning associated with the future land use and future public use of the FEMP. The preparation technical documents and plans and interfacing with stakeholders and regulators are included in this scope.

Preparation of Perimeter Areas for Restoration: Maintenance and management activities in perimeter areas will be accelerated to prepare areas for future restoration work. Large scale seeding, control of invasives and seedbed preparation will be carried out in 2002 and 2003.

Collection of Baseline and Reference Site Data: Ecological data will be collected in 2002 and 2003 to provide a basis for tracking the progress of restored areas on the FEMP. Data collection will occur on the FEMP prior to restoration to assess baseline ecological conditions at the Site. Established habitats will be monitored as reference site to provide data on a function ecological system.

Acquisition of a Deer Management Consultant: The services of a Deer Management Consultant will be retained in 2002 to provide recommendations on minimizing impacts of deer on restored areas of the FEMP.

Regulatory and Natural Resource Trustee Interface: Scope includes serving as primary interface with the regulators regarding natural resource, LTS and future use issues (as mentioned above) and facilitating all negotiations and planning related to the Natural Resource Trustee process and restoration of the FEMP.

Interface with SDFP: Scope includes the support of in planning and research to support establishment of vegetative cover on OSDF, integration of restoration with remedial planning and design, monitoring requirements for the OSDF and

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE

FEMP (DEFENSE)

2. DATE

12/01/2000

Page 3

3. WBS ELEMENT CODE

1.1.N.D

4. WBS ELEMENT TITLE/NAME

SITE CLOSURE

5. PERFORMING DIV/DEPARTMENT CODE

45

6. ORIGINATOR NAME/PHONE

ERIC WOODS 648-5268

7. WBS ELEMENT MANAGER

TERRY HAGEN

8. BUDGET AND REPORTING NUMBER

EW05H3120

9. BUDGET TITLE

PROGRAM SUPPORT & OVERSIGHT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?

NEW PER CP# FY01-0115-0012-00

11. ESTIMATED START / COMPLETION DATE

12/01/00 - 12/27/09

12. TASK IDENTIFICATION (WORK PACKAGE)

NDAAK

13. TASK DESCRIPTION (ONE LINE)

STEWARDSHIP PLANNING

14. ELEMENT TASK DESCRIPTION

restored areas and maintenance of certified and restored areas.

d. WORK SPECIFICALLY EXCLUDED:

None.

SECTION 3

1.0 NARRATIVE

1. PROJECT TITLE: PROGRAM SUPPORT AND OVERSIGHT	2. DATE: 09/10/01	3. PBS#: 12
4. WBS ELEMENT CODE: 1.1.N.D	5. WBS ELEMENT TITLE: SITE CLOSURE	
6. CAM NAME/PHONE: TERRY HAGEN/5261	7. CAM SIGNATURE:	
8. ORIGINAL/CHANGE SCOPE/PER CP#:	9. CONTROL ACCOUNT: NDAA	

PART 4: SITE CLOSURE (NDAA)

Section 3: Stewardship Planning (NDAAK)

1.0 NARRATIVE

1.1 OVERVIEW

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Stewardship Management contains ~~four~~ seven primary functions that will be discussed in this plan: 1. Long-term Stewardship Planning; 2. Future Use Planning; 3. Regulatory and Natural Resource Trustee Interface; 4. Technical Interface with Soils and Disposal Facility Project (SDFP); 5. Preparation of Perimeter Areas for Restoration; 6. Collection of Baseline and Reference Site Data and 7. Requisition of Deer Management Consultant. These four primary functions are summarized below and are outlined in greater detail in the last section of this Narrative Plan. The scope of the Cultural Resource Management Program is contained in the Stewardship Management organization, but is outlined in a separate Narrative Plan.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1. All labor and transportation support required for maintenance activities will occur as centralized support and will not be charged to Stewardship Management. Manpower charged to this account will include the oversight and planning resources only. Material required to implement maintenance activities would also be charged to Stewardship Management.

- ~~2. Portfolio support will be provided at .5 FTE level to complete scope in 2002 and 2003.~~

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2. DOE will proceed with current plans to implement and manage LTS of engineered disposal cells at their sites and will not transfer management responsibilities to another agency/organization.
3. Scope does not include Collection of Baseline and Reference Site ecological data to support tracking the progress of Restored areas. Only project specific monitoring is covered by this scope of work.

4. Scope does not include expansion of maintenance and management activities over the next three years to prepare areas for future natural resource restoration work.
5. Stakeholders will continue to drive DOE to develop LTS plans in the near-term and request ongoing updates and information regarding LTS planning at the FEMP.
6. The current plans for the end-use of the FEMP will not change significantly from current plans (e.g., an end-use that involves large scale commercial use of the FEMP) requiring different types of evaluations and feasibility studies to determine suitability of the site.
7. NRTs will continue to pursue settlement of natural resource liability at the FEMP and take an active role in restoration planning and implementation.
8. Weekly interface and update with the Regulators will continue.
9. FCAB will continue to take a lead role in making future use recommendations and remain active in restoration and LTS issues and will require ongoing updates and information.
10. DOE-HQ will continue to request data and evaluations regarding LTS planning.
11. The following regulations and agreements will continue to apply to Stewardship Management work at the FEMP:
 - CERCLA Implementing Regulations – 40 CFR 300 - This is a primary driver for natural resource injury liability and LTS requirements pertaining to public information.
 - FY 2000 National Defense Authorization Act.
 - Settlement Agreement – Natural Resource Defense Council, et. al. v. Richardson, et. al. – December 12, 1998.
 - DOE Order 200.1 – Information Management Program – related to LTS records and information.
 - DOE Order 430.1 – Life Cycle Asset Management and DOE Order 4320.1B Site Development Planning – related to potential transfer of property to another entity in the future.
 - DOE Order 5400.5 – Radiation Protection of the Public and the Environment- regarding use of property where residual radioactive material is present.
 - DOE Policy 430.1 - Land and Facility Use Policy – July 9, 1996 – use of DOE land and preservation of natural resource, diverse ecosystems, and cultural resources.
 - DOE/EH Guidance #413-004 - Institutional Controls in RCRA and CERCLA Response Actions, EH Office of Environmental Policy and Guidance.
 - Clean Water Act and Implementing Regulations (33 CFR 323-330) is a driver for NRT negotiations.
 - Endangered Species Act and Implementing Regulations (50 CFR 17) is a driver for NRT negotiations.

- National Environmental Policy Act and DOE Implementing Regulations (40 CFR 1500).
- DOI Regulations on Natural Resource Damage Assessment (43 CFR 11).

1.2.2 Exclusions

1. Implementation of Natural Resource Restoration Projects.
- ~~2. Acceleration and/or expansion of Natural Resource Maintenance/Management activities to prepare non-remediated areas for restoration.~~
2. Maintenance of uncertified areas (e.g., remediation areas, controlled areas).
- ~~3. Collection of Baseline and Reference Site ecological data to track the progress of restored areas to justify the endpoint for the NRRP.~~
3. Design work associated with Restoration Projects, Public Use Amenities.

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1.2.3 Government Furnished Equipment/Services

None

1.3 DRIVERS

The work scope outlined in the following section will require the use of the ~~2~~ **4.5** FTEs over the next two years. An additional FTE is required for the Cultural Resource Management Program, but is discussed in a separate Narrative Plan. During the first two years of the Closure Contract Stewardship Management activities will be at their highest level due to development and public review of the Comprehensive LTS Plan. In addition to LTS Planning activities, all maintenance of certified and restored areas, ~~the acceleration of management activities in perimeter areas to prepare areas for restoration and the collection of baseline and reference site ecological data~~ will be covered in Stewardship Management until the restart of SDFP in 2004. Starting in 2004, a reduction in the level of effort in Stewardship Management will occur due to the completion of the Comprehensive LTS Plan and the shift of certified and restored area maintenance back to SDFP. The justification of FTE levels as outlined is provided in the Manpower Planning portion of this Plan.

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1.4 SCOPE OF WORK

1.4.1 Task #1 - Long-Term Stewardship Planning

The scope of work provided by Long-Term Stewardship Planning in FY01 includes the following scope:

1. Develop Comprehensive Long-Term Stewardship (LTS) Plan for the FEMP in accordance with DOE Guidance.
 - Work with Public Affairs and other appropriate Fluor Fernald departments to facilitate DOE and Stakeholder review of the plan.
 - Develop comment responses and issue final version of the LTS Plan for DOE/Stakeholder review.
 - Issue Final LTS Plan with stakeholder concurrence by the end of CY 02.
 - Develop support plans for Comprehensive LTS Plan including Education Facility Management and Maintenance Plan, Institutional Control Plan, Records Management Plan, etc., for issues that can't be resolved at this time.
 - Revise Comprehensive LTS Plan and Support Plans every two years as necessary and make available to the public.
 - Issuance of Comprehensive LTS Plan for public review in FY 01.
 - Biannual update of the Comprehensive LTS Plan.
 - Complete University of Dayton contract on OSDF Cap Study by end of FY 2001.
 - Annual updates of records that will be retained for LTS.
2. Manage subcontract/university research and/or tasks to support LTS planning. Currently pursuing one contract regarding the vegetative cover of the OSDF that will conclude at the end of CY 2002. Plan for a maximum of 2 task orders or contracts per year for the life of the contract.
3. One person to attend the Annual DOE Long-term Stewardship Conference generally hosted by one of the major DOE Sites to learn status of DOE LTS initiatives and policies
4. Support stakeholder groups (e.g., FCAB, FRESH, CRO, Township Trustees) by providing LTS planning information. This will involve presenting material at meetings and preparing written material for stakeholders as requested. Estimated 15 after hour meetings per year, at less than five hours per meeting.
5. Manage ongoing process of identifying new records necessary for LTS. Initial list will be part of Comprehensive LTS Plan, but annual updates will be necessary.
6. Integrate with DOE discussions regarding an on-site educational/multi-purpose facility due to need for local repository for LTS records.

1.4.2. Task #2 - Future Use Planning

The scope of work provided by Future Use Planning in FY01 includes the following scope:

1. Develop written technical positions, with input from other Fluor Fernald Organizations as appropriate, regarding future public use of the FEMP.

Written technical positions will be needed for decision-making purposes and/or public review. Plan for three technical positions per year.

2. Support development of any required NEPA and other public documents. One Environmental Assessment and Finding of No Significant Impact is anticipated in FY 2001/2002 pertaining to future public use of the FEMP.
3. Completion of NEPA Environmental Assessment Process for Public Use Decision at the FEMP by the end of FY 02.
4. Interface and provide routine updates to Stakeholder Groups regarding future public use planning. One meeting per month.

1.4.3 Task #3 - Regulatory/Natural Resource Trustee Interface

The scope of work provided by Regulatory/Natural Resource Trustee Interface in FY01 includes the following scope:

1. Serve as technical point of contract with regulators on all restoration, future public use, and LTS issues.
2. Facilitate all negotiations to resolve Natural Resource Injury Liability (including State of Ohio Claim). NRTs generally meet on a monthly basis for less than eight hours per meeting during work hours. Settlement of Natural Resource Injury Liability is anticipated in Calendar Year 2002.
3. Prepare technical evaluations of restoration scenarios/approaches as requested by NRTs to support ongoing negotiations.
4. Prepare documentation to support settlement, including:
 - Revised Natural Resource Restoration Plan;
 - Paddys Run Restoration Plan; and
 - Memorandums of Understanding.
5. The Natural Resource Restoration Plan will be finalized by the end of Calendar Year 2001.
6. The Paddys Run Restoration Plan and Settlement Memorandum of Understanding will be finalized by the end of Fiscal Year 2002.

1.4.4. Task #4 - Interface with Soils and Disposal Facility Project

The scope of work provided by Interface with SDFP in FY01 includes the following scope:

1. Support needs of SDFP in developing technical positions and conducting research on ecological components of OSDF (e.g., vegetation cover, managing burrowing animals) to support OSDF documents and LTS plans.
2. Conduct monitoring of restored areas per existing restoration designs for Area 1, Phase I Wetland Mitigation Project and Area 8, Phase II Restoration Project through the end of CY 2003 (function then carried out by SDFP).
3. Secure contracts for the plant material to be used during restoration work from 2004 through 2009.

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4. Manage ecological research projects with universities as appropriate to support restoration planning and NRT negotiations. Three ongoing research projects will be complete by the end of CY 2002. Maximum of one per year in following years.
5. Coordinate maintenance of certified and restored areas as needed through the end of FY 03 (function then carried out by SDFP). The implementation of this task includes the oversight manpower and material required to complete the scope described below. Oversight manpower requirements are described in Section 1.4.5. Labor and transportation manpower required to carry out the maintenance activities described below would be covered by others (e.g., Infrastructure Services):
 6. Maintenance requirements would include, but are not limited to the following:
 - Replacing a maximum of 400 trees/shrubs per year in restored areas.
 - Reseeding a maximum of 50 acres per year
 - Conducting spot removal of invasive weeds from restored areas as needed to avoid impact to restored vegetation
 - Management and maintenance of prairies (e.g., burning, mowing). In order to establish and sustain a healthy prairie ecosystem, management will be required. Management will involve the removal of weedy plants to the degree possible and the elimination of thatch build up every two – three years. Burning is the optimal method for the management of prairies, but mowing and thatch removal can also be used as an effective management tool. The Management of prairie ecosystems is described in *The Tallgrass Restoration Handbook* by S. Packard.
 - Spraying herbicide to control invasive and nuisance plants as needed.
 - Periodically inspect and repair bioengineering features as needed.
 - Implement Erosion control as needed
 - Maintain water control devices (e.g., headwall structures, standpipes).
 - Replacement of gravel in access points for restored/certified areas.
 - Replacement of signs/ropes around certified areas and certified area stockpiles.
 - Repair of mulch trails and other public use amenities as needed.
 - Repair of fencing around restored areas.
 - Mowing a maximum of 200 acres 12 times a year.
7. Replacing a maximum of 400 trees/shrubs per year in restored areas. The replacement of trees and shrubs will only be carried out if the survival rate in the wetland mitigation project, ecological restoration park or Area 8, Phase II drops below 80% during the required monitoring period.
8. Reseeding a maximum of 50 acres per year. Based on past experience, the amount of seeding required in a given year should not exceed 50 acres per year. Application method will be primarily the Truax Seed Drill with hand application in areas that are not accessible with the seed drill.

9. Mowing or burning approximately 25 acres of prairie per year. The initial phases of prairie ecosystems have been established in numerous parts of the FEMP.
10. Application of herbicide by injection or spraying to control invasive and nuisance plants will be carried out at a rate of no more than 10 acres per year.
11. Mowing a maximum of 200 acres 12 times a year. Mowing will be required on the southern perimeter of the FEMP and around access areas to maintain a safe condition around adjacent roadways.
12. Repair and installation of bioengineering and erosion control features will not exceed 5,000 square feet of erosion control matting in a single year.
13. Replacement of gravel in access points for restored/certified areas will not exceed 6,000 square feet at six inches deep in a given year.
14. Repair of mulch trails will not exceed 500 feet repaired in a single year.
15. Repair of fencing around restored areas will not exceed 500 feet of woven wire fencing in a single year.

1.4.5 Task #5 – Preparation of Perimeter Areas for Restoration

The scope of work to prepare perimeter areas for restoration includes the following scope:

1. Accelerate Maintenance/Management activities in perimeter areas to prepare for restoration work in the out-years.
2. Activities planned include large-scale seeding, control of invasive/aggressive plant, hydrologic investigations, and seedbed preparation activities.
3. Perimeter areas will be divided in the three zones (Northern Woodlot, Paddys Run North and Paddys Run South) and one zone per year will be addressed over the next three years (2001-2002).
4. This activity will require the support of an Env. Protection Rep at 0.9 of an FTE in 2002 and 2003.

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1.4.6 Task #6 – Collection of Baseline and Reference Site Data

The scope of work to collect Baseline and Reference Site Data includes the following scope:

1. The collection of baseline and reference site ecological data will provide points of comparison for ecological data collected in the restored areas of Fernald.
2. Baseline data will be collected in 2001 and 2002 and will provide information on the ecological condition of the site prior to the implementation of restoration.
3. Reference sites will be selected representing established natural systems (wetlands, prairies, etc.) and data will be collected in 2002 and 2003 in

the same manner as data was collected from baseline locations on the FEMP.

4. As restoration projects are completed, the same type of data will be collected from restored areas providing a way to compare the progress/success of restoration work at the FEMP.
5. The ability to access the progress of restored areas on the FEMP will help eliminate the requirements for long-term ecological monitoring in restored areas of the FEMP by demonstrating adequate progress by the end of the Closure Contract.

1.4.7 Task #7 – Acquisition of Deer Management Consultant

The scope of work acquisition of a Deer Management Consultant includes:

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1. The acquisition of a consultant in FY2002 for a maximum of 200 hours to develop recommendations on controlling the impact of the Whitetail Deer population on restored areas of the FEMP and agricultural properties adjacent to the FEMP.
2. The Deer Management Consultant would be contracted after October 1, 2001 and would assess the site and make formal recommendations in the form of a report prior to end of FY02.

1.4.5 1.4.8 The Plan

The plan for performing the above scope is to continue the above services until services are modified as follows:

1. ~~Two~~ 4.5 FTEs will be required from FY 2001 through 2003 to implement the scope of work outlined above. ~~Both~~ The FTE's will share in the a balance and oversight of maintenance and monitoring work, collection of baseline and reference site ecological data in the field and other tasks related to document development.
2. The completion of the activities outlined below would result in the ability to reduce Stewardship Management by 2.5 FTE at the end of Fiscal Year 2003:
 - Research support subcontracts applicable to the vegetative cover on Cell 1 will be largely complete in Fiscal Year 2003.
 - Accelerated management of perimeter areas to prepare for restoration will be complete.
 - Certified and Restored Area maintenance will be transferred back to SDFP at the end of Fiscal Year 2003.
 - The Comprehensive LTS Plan and associated support plans will be complete, including public review, in Fiscal Year 2003.
 - The major issues with LTS Planning should be resolved over the next two years with the preparation and review of the Comprehensive LTS

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Plan reducing the need to evaluate and research issues and approaches.

- The collection of baseline and reference site ecological data will be complete.
 - Current subcontracts for ecological research and LTS planning will be complete in Fiscal Year 2003.
 - Settlement of Natural Resource Injury Liability will occur in Fiscal Year 2003.
3. At the end of Fiscal Year 2005 a reduction of 1 FTE can occur in Stewardship Management. The remaining .5 FTE will be required in a part time arrangement to cover revisions to the LTS Plan and support documents, stakeholder/regulator/NRT issues, and ongoing interface with SDFP.

1.4.6 1.4.9 The Quantification

The quantification for Stewardship Management is based indirectly on the need to monitor and maintain certified and restored areas (see Section 1.3). The resource requirement for this and the correlation with site manpower is shown in the following table:

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	01	02	03	04	05	06	07	08	09	10
Env. Prot. Spec.	1	1	1	1	1	0	0	0	0	0
Tech/Prog Sup. Mgr	1	1	1	.5	.5	.5	.5	.5	.5	.5
Tech/Prog Specialist	1	1	1	0	0	0	0	0	0	0
Env. Prot. Specialist	1	1	1	0	0	0	0	0	0	0
Env Tech (Intern)	.5	.5	.5	0	0	0	0	0	0	0

SECTION 3

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1ND03 STEWARDSHIP PLANNING

DRIVERS	START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
301 OSDF Summary Schedule	04/01/2004	12/23/2009																									
411 AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
502 WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
601 Soils Excavation Project Summary	10/01/2003	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
704 Silos AWR Summary	10/02/2000	10/23/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x											
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
801 Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
1001 Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
1101 Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	
Project Management		Tech/Program Support Rep.	11.00	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	
Project Management		Tech/Program Support Mgr.	24.50	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Environmental		Environmental Protection Rep.	24.00	0	0	0	0	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	0	0	0	
Environmental		Environmental Scientist Tech.	4.00	0	0	0	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0	
Sheet Totals:			63.50	1.00	2.00	2.00	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	0.50	0.50	0.50	0.50	

Manpower Planning Sheet (CR2)

MPS # 1ND03 STEWARDSHIP PLANNING

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007	xxx	xxx																		
301 OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
411 AWWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
502 WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx					
704 Silos AWR Summary	10/02/2000	10/23/2003																				
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008	xxx	xxx	xxx	xxx	xxx	xxx														
801 Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001 Mixed Waste Summary	10/02/2000	09/30/2003																				
1101 Low Level Waste Summary	10/02/2000	09/30/2005																				
Project Management		Tech/Program Support Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Project Management		Tech/Program Support Mgr.	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	
Environmental		Environmental Protection Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Environmental		Environmental Scientist Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sheet Totals:			0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.00	0.00	0.00	0.00	0.00	

SECTION 3

3.0 ESTIMATE

NDAAK

STEWARDSHIP PLANNING

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

DATE: 10-Sep-01
PROJECT MGR: ERIC WOODS
CAM: TERRY HAGEN
PREPARED BY: TRACY BRAUN
FISCAL YEAR: FY01 - FY10

PBS: 12

WBS: 1.1.N.D.

CTRL ACCT: NDAK

CHARGE NO: NDAAK

COMMENT NO: 12-080, 12-081, 670

Resource: Res Dept:	ENPREP	ENVIR PROTECTION REP	Class:	EOC: SAL	LABOR									
Overtime:					Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 10	Sep 10	Sep 10
Yr Hours:	0.0	3,494.0	3,494.0	3,494.0	1,747.0	1,747.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	3,494.0	6,988.0	8,735.0	10,482.0	10,482.0	10,482.0	10,482.0	10,482.0	10,482.0	10,482.0	10,482.0	10,482.0	10,482.0
Yr Total Cost:	0	177,781	186,305	99,704	105,614	0	0	0	0	0	0	0	0	0
Cum Total Cost:	0	177,781	366,086	465,790	571,404	571,404	571,404	571,404	571,404	571,404	571,404	571,404	571,404	571,404

Resource: Res Dept:	ENSTEC	ENVIR SCIENTIST TECH	Class:	EOC: SAL	LABOR									
Overtime:					Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 10	Sep 10	Sep 10

Yr Hours:	0.0	873.5	873.5	873.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	873.5	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0
Yr Total Cost:	0	26,038	27,580	0	0	0	0	0	0	0	0	0	0	0
Cum Total Cost:	0	26,038	53,618	53,618	53,618	53,618	53,618	53,618	53,618	53,618	53,618	53,618	53,618	53,618

Resource: Res Dept:	MAT300	MATERIAL OBJCLASS300	Class:	EOC: MAT	MATERIAL									
Overtime:					Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 10	Sep 10	Sep 10

Yr Units:	102,940.0	102,940.0	102,940.0	15,230.0	15,230.0	15,230.0	15,230.0	15,230.0	15,230.0	15,230.0	15,230.0	15,230.0	15,230.0	15,230.0
Cum Units:	102,940.0	205,880.0	308,820.0	324,050.0	339,280.0	354,510.0	369,740.0	384,970.0	399,200.0	414,430.0	429,660.0	444,890.0	460,120.0	475,350.0
Yr Total Cost:	102,940	105,719	108,574	16,513	16,976	17,468	17,959	18,450	18,941	19,432	19,923	20,414	20,905	21,396
Cum Total Cost:	102,940	208,659	317,233	333,746	350,722	368,190	386,165	404,140	422,115	440,090	458,065	476,040	494,015	511,990

Resource: Res Dept:	ODCTRLV	TRAVEL RESOURCE	Class:	EOC: ODC	ODC									
Overtime:					Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 10	Sep 10	Sep 10

Yr Units:	2,118.0	2,118.0	2,118.0	1,059.0	1,059.0	1,059.0	1,059.0	1,059.0	1,059.0	1,059.0	1,059.0	1,059.0	1,059.0	1,059.0
Cum Units:	2,118.0	4,236.0	6,354.0	7,413.0	8,472.0	9,531.0	10,590.0	11,649.0	12,708.0	13,767.0	14,826.0	15,885.0	16,944.0	18,003.0
Yr Total Cost:	2,118	2,175	2,234	1,148	1,180	1,215	1,250	1,286	1,323	1,359	1,395	1,431	1,467	1,503
Cum Total Cost:	2,118	4,293	6,527	7,675	8,856	10,070	11,320	12,606	13,930	15,303	16,718	18,177	19,680	21,227

S\NEST_FORMS\Ndaak



INCLUDES ESCALATION COSTS

Resource:	TPSMGR	TECH/PROG SUPT MGR	LABOR											
Res Dept:		Overtime:	EOC: SAL											
			Class:											
			Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-		
			Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10		
Yr Hours:			1,452.0	1,747.0	1,747.0	873.5	873.5	873.5	873.5	873.5	873.5	873.5	193.5	
Cum Hours:			1,452.0	3,199.0	4,946.0	5,819.5	6,693.0	7,566.5	8,440.0	9,313.5	10,187.0	10,380.5		
Yr Total Cost:			90,663	114,818	121,615	64,393	68,210	72,875	79,002	83,269	92,536	21,130		
Cum Total Cost:			90,663	205,481	327,097	391,490	459,700	532,575	611,577	694,847	787,382	808,513		

S:\EST_FORMS\ndaak INCLUDES ESCALATION COSTS

GRAND TOTALS:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Cum Hours:	2,778.0	7,861.5	7,861.5	2,620.5	2,620.5	873.5	873.5	873.5	873.5	193.5
Yr Total Cost:	2,778.0	10,639.5	18,501.0	21,121.5	23,742.0	24,615.5	25,489.0	26,362.5	27,236.0	27,429.5
Cum Total Cost:	284,620	570,510	588,705	203,444	214,273	114,497	121,831	127,340	137,884	21,130
	284,620	855,130	1,443,835	1,647,279	1,861,552	1,976,048	2,097,879	2,225,219	2,363,103	2,384,234

CAM  For: T. Hagen CONTROL TEAM 

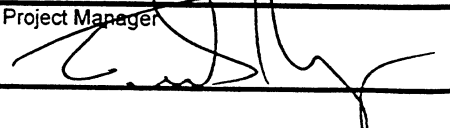
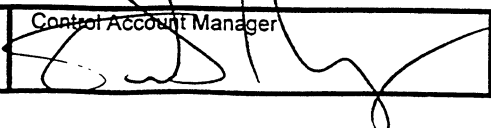
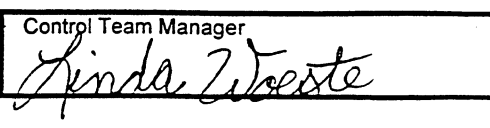
SECTION 3

4.0 RISK PLAN

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WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 1
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE MICHELE MILLER 648-5167	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NDAAL	13. TASK DESCRIPTION (ONE LINE) CLOSURE PROJECT MANAGEMENT		
14. ELEMENT TASK DESCRIPTION a. ELEMENTS OF COST: Labor Material Subcontracts TP Labor ODCs b. TECHNICAL CONTENT: Closure Project Management (CPM) is responsible for strategic alignment of crosscutting issues, Program/Project review, organizational development and performance measurement of the FEMP Closure Plan. This includes being a focal point for integrating critical impasses in execution as well as new/innovative ideas to accomplish the remedial work. CPM Director is responsible for Level 1 management (including Control Account Management) of Technology Programs, Engineering Services, Stewardship Management, and Site Closure Planning & Integration. The CPM Director is responsible for strategic coordination of technical liaison between Fluor Fernald Inc. and external agencies, regulators and stakeholder communities. c. SCOPE OF WORK: Closure Project Management Administration - Human Resources Generalist activities - Property Management - Facilities Operations - Space Planning and Move Coordination - Division Acquisition - Division Records Management Coordination			
Project Manager 	Control Account Manager 	Control Team Manager 	

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE MICHELE MILLER 648-5167	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NDAAL	13. TASK DESCRIPTION (ONE LINE) CLOSURE PROJECT MANAGEMENT		

14. ELEMENT TASK DESCRIPTION

- Special Divisional projects

Division Acquisition for the CPM division to include, but not limited to: liaison to ensure division requirements are procured in accordance with both project and program schedules, and administration of the credit card program within the CPM division.

Document Administration and Division Document Development is responsible for administering the CPM document program.

Strategic alignment of cross-cutting issues, organizational development, integration strategy and new cost saving ideas; resolution of critical impasses.

Coordination of re-evaluation of baseline and oversight of all site charges for consistency and variance control.

Technical liaison for all Fluor Fernald interfaces with external agencies, regulators, and stakeholder communities.

Project/Program review and evaluation of progress for performance measurement and reporting.

Focal point for new/innovative ideas to accomplish remedial work.

d. WORK SPECIFICALLY EXCLUDED:

-Divisional procedure administration for divisions other than CPM.

SECTION 4

1.0 NARRATIVE

PROJECT TITLE: PROGRAM SUPPORT AND OVERSIGHT	2. DATE: 4/23/01	3. PBS#: 12
4. WBS ELEMENT CODE: 1.1.N.D	5. WBS ELEMENT TITLE: SITE CLOSURE	
6. CAM NAME/ PHONE: TERRY HAGEN/5261	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: NDAA	

PART 4: SITE CLOSURE (NDAA)

Section 4: Closure Project Management (NDAAL)

1.0 NARRATIVE

1.1 OVERVIEW

Closure Project Management (CPM) is responsible for strategic alignment of crosscutting issues, Program/Project review, organizational development and performance measurement of the FEMP Closure Plan. This includes being a focal point for integrating critical impasses in execution as well as new/innovative ideas to accomplish the remedial work. CPM Director is responsible for Level 1 management (including Control Account Management) of Technology Programs, Engineering Services, Stewardship Management, and Site Closure Planning & Integration. The CPM Director is responsible for strategic coordination of technical liaison between Fluor Fernald Inc. and external Agency, Regulatory and Stakeholder communities.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

1. The Closure Contract incorporates DOE Orders and Directives as listed in Section J attachment 2 and include:
 - DOE M 140.1-1A requires Defense Nuclear Facilities Safety Board (DNFSB) interface.
 - DOE O 224.1 requires a Performance-Based Business Management Process.
 - DOE requires an Integrated Planning, Accountability and Budgetary System (IPABS) for performance management.
 - DOE O 413.3 requires Program and Project Management for the acquisition of Capital Assets including the use of an Earned Value Management System (EVMS).
2. Also, specific plans/reports are required for compliance with the Closure Contract as listed in Section J Attachment 3 and include:
 - Staffing Analysis
 - Quarterly Critical Analysis Reports

- Baseline Summary and Status Reports
 - FY ETC Analysis Reports
3. Need for external strategic operations/alignment exists throughout the Closure Contract life cycle to Site Completion in FY-10.
 4. Need to coordinate strategy for Agency, Regulator and Stakeholder negotiations, settlements and alignments through FY-10.
 5. DOE and Fluor Fernald Leadership management relies on the organization for data consistency, data flow hierarchy, external contact and maintenance of internal integration relationships through FY-10.
 6. Material budgets are based on an average rate as established by Project Controls. This group continues to have average office supply needs.

1.2.2 Exclusions

1. The Project Controls System, Manpower Planning System and Estimating Services Risk Estimating Simulation Systems, for baseline management and Change Control, are operated by FF Project Controls Department.

1.2.3 Government Furnished Equipment/Services

1. None.

1.3 DRIVERS

1. Federal and State regulation and DOE Orders/Directive changes
2. DOE, Regulator and Stakeholders meeting schedules and information/model scenario requests
3. FF Project/Program execution schedule changes

1.4 SCOPE OF WORK

1.4.1 TASK #1 - Technical Liaison

The scope of work provided by Technical Liaison in FY01 includes the following scope:

1. Technical liaison with Regulatory Community. 8 meetings a month. Requires travel to Chicago and Dayton once a year.
2. Coordinate technical information for DNFSB visits and information requests. Quarterly meeting
3. Technical liaison with Fernald Citizens Advisory Board (CAB), Community Reuse Organization (CRO) and other local community stakeholders. Monthly meeting.
4. Support technical information requirements of media and stakeholder communications. Monthly review of 10 documents consisting of technical information for publication.

5. Provide external and internal operations feedback as related to accelerated approach to Strategic Planning for Site Completion. Weekly meeting. Requires travel to Amelia Island, NTS, Denver, Las Vegas, at least 4 times a year.
6. Provide liaison to groups responsible for DOE Budget "What If scenarios @ and support DOE involvement for scenarios tied to Congressional Appropriations. Semi annual meetings. Requires travel to Wash.DC twice and Dayton once a year.

The plan for performing the above scope is to continue the above services until services are modified as follows:

The need for technical liaison reduces by half in FY-02 as the site culture adapts to Closure. After FY-03 residual liaison will be absorbed by another Leadership Team member.

The quantification for Technical Liaison is based primarily on Fluor Fernald, Inc. closure project maturity and stakeholder communication needs. The resource requirements summary for this is shown in the following table:

	01	02	03	04	05	06	07	08	09	10
Manager	0.7	0.50 0	0.50 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T/P Sup. Rep.	0.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dept. Admin	0.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exec. Admin.	0.7	0.25	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FTE	1.59	0.75	0.7	0	0	0	0	0	0	0
ODCs	\$12000	\$6000	\$6000	0	0	0	0	0	0	0
Materials	\$1000	\$1000	\$1000	0	0	0	0	0	0	0

R1-
F12-
062

1.4.2 Task #2 - Strategic Planning

The scope of work provided by Strategic Planning in FY01 includes the following scope:

1. Provide integration strategy/planning for all identified points of interest. Implement Best Business Practices for removing barriers to Contract execution, clarification of misunderstandings on the Contract execution approach, and putting perceived issues into Closure Contract perspective.

The plan for performing the above scope is to continue the above services until services are modified as follows:

The level of maturity of the closure contract controls the level of effort of strategic planning for CPM . CPM strategic planning efforts

begin to decrease nearly entirely in FY-03 after the new project management culture is completely implemented.

The quantification for Strategic Planning is based primarily on Fluor Fernald, Inc. closure project maturity. The resource requirements summary for this is shown in the following table:

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	01	02	03	04	05	06	07	08	09	10
Manager	0.1	0.1 0	0.03 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T/P Sup. Rep.	0.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exec. Admin.	0.09	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL FTE	0.22	0.15	0.03	0	0	0	0	0	0	0

1.4.3 Task #3 - Performance Evaluation

The scope of work provided by Performance Evaluation in FY01 includes the following scope:

1. Provide oversight of all site charges including but not limited to charges related to overtime, travel costs, material costs, labor staffing, subcontracts, etc.
2. Review and evaluate Project/Program performance using an Earned Value Management System (EVMS). The EVMS includes development of Work Breakdown Structure (WBS), assignment of "unit of measure" for performance for each work scope, and definition of completion for each scope activity. Evaluate performance and assist Project/Program management in developing corrective actions to control variances. Initiate Project/Program performance reviews. Initiate Quarterly Critical Analysis meeting. Funds utilization reports and Annual Performance reports.
3. Sponsor ongoing re-evaluation of the baseline as needed in response to changing conditions.

The plan for performing the above scope is to continue the above services until services are modified as follows:

CPM efforts to measure and manage performance remain constant throughout the Closure Contract until Site Closure is achieved in FY-10.

The quantification for Performance Evaluation is based primarily on Fluor Fernald, Inc. closure project maturity. The resource requirements summary for this is shown in the following table:

R1-
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062

	01	02	03	04	05	06	07	08	09	10
Manager	0.1	0.1 0.0	0.05 0.0							
Const. Eng.	1.0	1.0 0	1.0 0	1.0 0	1.0 0	1.0 0	1.0 0	1.0 0	1.0 0	.25 0
Exec. Admin.	0.1	0.1	0.1	0.1	0.1	0.05	0.05	0.0	0	0
TOTAL FTE	1.2	1.2	1.15	1.1	1.1	1.05	1.05	1	1	0.25
Materials	\$3000	\$3000	\$3000	\$3000	\$3000	\$3000	\$3000	\$3000	\$3000	\$1000

1.4.4 Task #4 - Technical Integration

The scope of work provided by Technical Integration in FY01 includes the following scope:

1. Facilitate Technical Integration Planning between projects for critical impasses to execution and to be a focal point for new/innovative ideas to improve performance. Weekly meetings of core Integrated Task Team. 7-15 Subteam kickoffs per month. 4 Subteam recommendations and implementations approvals each month. Quarterly Progress Reports to the Leadership Team. Annual summary report.

The plan for performing the above scope is to continue the above services until services are modified as follows:

The level of maturity of the closure contract controls the level of effort for CPM technical oversight of the work. CPM integration efforts begin to decrease by nearly half in FY-03 after the new project management culture is completely implemented. CPM technical integration effort will be reduced by half again in FY-04 and remain constant until FY-08 when Silos shuts down.

The quantification for Technical Integration is based primarily on Fluor Fernald, Inc. closure project maturity. The resource requirements summary for this is shown in the following table:

	01	02	03	04	05	06	07	08	09	10
Manager	0.05	0.05 0	0.03 0	0	0	0	0	0	0	0
T/P Sup. Rep.	0.77	0.6	0.5	0.3	0.3	0.3	0.3	0.0	0.0	0.0
Dept. Admin	0.09	0	0	0	0	0	0	0	0.0	0.0
Exec. Admin.	0.09	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
TOTAL FTE	1.0	0.75	0.63	0.4	0.4	0.4	0.4	0	0	0

R1-
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062

1.4.5 Task #5 - Organizational Infrastructure

The scope of work provided by Organizational Infrastructure in FY01 includes the following scope:

1. Provide an organizational infrastructure that is primarily focused on the success of the Closure Contractor for FEMP. Coordinate the Site Staff Optimization Planning and Organizational Development management process. 4-6 meetings a month

The plan for performing the above scope is to continue the above services until services are modified as follows:

The level of maturity of the closure contract controls the level of CPM effort for optimizing the organizational infrastructure. Efforts begin to decrease by nearly half in FY-03 after the new project management culture is completely implemented. The efforts are decreased slightly again in FY-04 after OSDF & Soils are back in operation. By FY-06, after Soils/OSDF has been in renewed operation for two seasons and the WPRAP and WGS projects are completed, CPM effort will be reduced to minimal. By FY-08 when Silos is completing there will be no further need for this oversight.

The quantification for Organizational Infrastructure is based primarily on Fluor Fernald, Inc. closure project maturity. The resource requirements summary for this is shown in the following table:

	01	02	03	04	05	06	07	08	09	10
Manager	0.1	0.05 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T/P Sup. Rep.	0.03	0.05	0.05	0.05	0.02	0.01	0.01	0.0	0.0	0.0
Dept. Admin	0.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exec. Admin.	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.0	0.0	0.0
TOTAL FTE	0.2	0.1	0.1	0.1	0.07	0.06	0.06	0	0	0

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F12-
062

1.4.6 Task #6 - Division Management

The scope of work provided by Division Management in FY01 includes the following scope:

1. Administer the program needs for Closure Project Management including space coordination, executive administration and safety program coordination. Monthly core administrative group meetings. Monthly space management coordination meetings through FY05. Monthly Project/Program safety review meetings and reports.

The plan for performing the above scope is to continue the above services until services are modified as follows:

CPM division management effort is controlled in part by the staffing of the division and in part by company reporting for the division regardless of staff. The efforts begin to decrease in FY-03 after the new project management

culture is completely implemented and then remains constant until the Silos is complete in FY-08.

The quantification for Division Management is based primarily on Fluor Fernald, Inc. closure project maturity and it's affect on division staffing requirements. The resource requirements summary for this is shown in the following table:

	01	02	03	04	05	06	07	08	09	10
Manager	0.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
T/P Sup. Rep.	0.2	0.2 1.2	0.2 1.2	0.2 1.2	0.2 1.2	0.2 1.2	0.2 1.2	0.0	0.0	0.0
Dept. Admin	0.77	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exec. Admin.	0.0	0.3 0.0	0.3 0.0	0.3 0.0	0.3 0.0	0.3 0.0	0.3 0.0	0.0	0.0	0.0
TOTAL FTE	0.99	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0

R1-
F12-
062

SECTION 4

2.0 MANPOWER PLANS

MPS #	1ND07	CLOSURE MANAGEMENT

[illegible]

MPS #	1ND07	CLOSURE MANAGEMENT

[illegible]

SECTION 4

3.0 ESTIMATE

NDAAL

CLOSURE PLANNING ADMINISTRATION

09/10/2001
2:03 PM**Fluor Fernald, Inc.**ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)DATE: 10-Sep-01
PROJECT MGR: MICHELE MILLER
CAM: TERRY HAGEN
PREPARED BY: TRACY BRAUN
FISCAL YEAR: FY01 - FY10PBS: 12
WBS: 1.1 N.D.
CTRL ACCT: NDAAL
CHARGE NO: NDAAL
COMMENT NO: 12-060, 12-062

Resource:	CNSEN	CONSTRUCTION ENG	EOC:	LABOR	
Res Dept:		Overtime:	SAL	Class:	
Yr Hours:		Oct 00- Sep 01 1,452.0	Oct 02- Sep 03 0.0	Oct 03- Sep 04 0.0	Oct 04- Sep 05 0.0
Cum Hours:		1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:		79,134	0	0	0
Cum Total Cost:		79,134	79,134	79,134	79,134

Resource:	DEPADM	DEPT ADMINISTRATOR	EOC:	LABOR	
Res Dept:		Overtime:	SAL	Class:	
Yr Hours:		Oct 00- Sep 01 1,452.0	Oct 02- Sep 03 0.0	Oct 03- Sep 04 0.0	Oct 04- Sep 05 0.0
Cum Hours:		1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:		46,043	0	0	0
Cum Total Cost:		46,043	46,043	46,043	46,043

Resource:	EXEADM	EXEC ADMINISTRATOR	EOC:	LABOR	
Res Dept:		Overtime:	SAL	Class:	
Yr Hours:		Oct 00- Sep 01 1,452.0	Oct 02- Sep 03 698.8	Oct 03- Sep 04 349.4	Oct 04- Sep 05 349.4
Cum Hours:		1,452.0	3,106.7	3,456.1	3,805.5
Yr Total Cost:		45,927	24,643	13,048	13,821
Cum Total Cost:		45,927	102,394	115,442	129,263

Resource:	MAT300	MATERIAL OBJCLASS300	EOC:	MATERIAL	
Res Dept:		Overtime:	MAT	Class:	
Yr Units:		Oct 00- Sep 01 4,000.0	Oct 02- Sep 03 4,000.0	Oct 03- Sep 04 3,000.0	Oct 04- Sep 05 3,000.0
Cum Units:		4,000.0	12,000.0	15,000.0	18,000.0
Yr Total Cost:		4,000	4,219	3,253	3,344
Cum Total Cost:		4,000	12,327	15,580	18,924

S:\NEST_FORMS\Ndaal

INCLUDES ESCALATION COSTS

34,583


Resource:	ODCTRL	TRAVEL RESOURCE		EOC:		ODC	
Res Dept:		Overtime:	Class:	Oct 02-	Oct 03-	Oct 04-	Oct 05-
				Oct 01-	Oct 02-	Oct 03-	Oct 04-
				Sep 02	Sep 03	Sep 04	Sep 05
Yr Units:		12,000.0		6,000.0	6,000.0	0.0	0.0
Cum Units:		12,000.0		18,000.0	24,000.0	24,000.0	24,000.0
Yr Total Cost:		12,000		6,162	6,328	0	0
Cum Total Cost:		12,000		18,162	24,490	24,490	24,490

Resource:	PRJGR	PROJECT MANAGER		EOC:		LABOR	
Res Dept:		Overtime:	Class:	Oct 02-	Oct 03-	Oct 04-	Oct 05-
				Oct 01-	Oct 02-	Oct 03-	Oct 04-
				Sep 02	Sep 03	Sep 04	Sep 05
Yr Hours:		1,452.0		0.0	0.0	0.0	0.0
Cum Hours:		1,452.0		1,452.0	1,452.0	1,452.0	1,452.0
Yr Total Cost:		129,460		0	0	0	0
Cum Total Cost:		129,460		129,460	129,460	129,460	129,460

Resource:	TPSREP	TECH/PROG SUPT REP		EOC:		LABOR	
Res Dept:		Overtime:	Class:	SAL			
		Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06
		1,452.0	3,227.0	2,969.9	2,620.5	2,620.5	2,620.5
Yr Hours:		1,452.0	4,679.0	7,648.9	10,289.4	12,889.9	15,510.4
Cum Hours:		75,446	176,491	172,046	160,756	170,285	181,931
Yr Total Cost:		75,446	251,937	423,983	584,739	755,024	936,955
Cum Total Cost:		75,446					

GRAND TOTALS:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Cum Hours:	7,260.0	4,182.9	3,668.7	2,969.9	2,969.9	2,969.9	2,969.9	0.0	0.0	0.0
Yr Total Cost:	7,260.0	11,442.9	15,111.6	18,081.5	21,051.4	24,021.3	26,991.2	26,991.2	26,991.2	26,991.2
Cum Total Cost:	392,010	218,586	207,236	177,056	187,450	200,138	216,776	3,643	3,749	1,286
	392,010	610,596	817,832	994,888	1,182,338	1,382,476	1,599,252	1,602,896	1,606,645	1,607,931

CAM  Feri T. Hagen CONTROL TEAM  Linda Weate

SECTION 4

4.0 RISK PLAN

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WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE

FEMP (DEFENSE)

2. DATE

12/01/2000

Page 1

3. WBS ELEMENT CODE

1.1.N.D

4. WBS ELEMENT TITLE/NAME

SITE CLOSURE

5. PERFORMING DIV/DEPARTMENT CODE

45

6. ORIGINATOR NAME/PHONE

NORM PENNINGTON 648-6444

7. WBS ELEMENT MANAGER

TERRY HAGEN

8. BUDGET AND REPORTING NUMBER

EW05H3120

9. BUDGET TITLE

PROGRAM SUPPORT & OVERSIGHT

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?

NEW PER CP# FY01-0115-0012-00

11. ESTIMATED START / COMPLETION DATE

12/01/00 - 12/27/09

12. TASK IDENTIFICATION (WORK PACKAGE)

NDAAU

13. TASK DESCRIPTION (ONE LINE)

CENTRAL ENGINEERING

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Subcontracts
Material
ODCs

b. TECHNICAL CONTENT:

ENGINEERING FUNCTIONAL AREA AND PROGRAM MANAGEMENT

Configuration Management (CM) and Engineering Design (ED) Functional Areas support per the S/RIDS. This includes providing interfacing activities with other Functional Areas and preparation and maintenance of CM/ED procedures.

A/E ERA Project contract closeout activities in accordance with the contract and DCAA Audit. Provide administrative and management oversight of A/E services/subcontract and coordinate scoping and pricing of Task Orders.

Technical support for general engineering services.

Provide for periodic assessment of functional area requirements in the projects.

ENGINEERING SERVICES

Management and administration of engineering support services. Provide for special project engineering support for work requested by other departments. Provide engineering support to the Projects.

Provide for Engineering technical support staff qualification.

Project Manager

Control Account Manager

Control Team Manager

Linda W. W. W.

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE NORM PENNINGTON 648-6444	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NDAAU	13. TASK DESCRIPTION (ONE LINE) CENTRAL ENGINEERING		

14. ELEMENT TASK DESCRIPTION

COMPUTER AIDED DESIGN AND DRAFTING (CADD)

Management and administration of the Computer Aided Design and Drafting (CADD) Services Section. This includes providing facilities design engineering administration for work requested by other divisions, and centralized storage and maintenance of all FEMP master drawings.

TECHNICAL REVIEW BOARD (TRB) MANAGEMENT

Administration and support of the Technical Review Board.

c. SCOPE OF WORK:

ENGINEERING FUNCTIONAL AREA AND PROGRAM MANAGEMENT

CM/ED Functional Area Management activities:

- Ensure quality, productivity, topical training for implementing CM/ED functional areas by Project Managers/Engineers to support OU projects and other divisions activities.
- Development and maintenance of CM/ED Functional Area procedures.
- Assess performance to S/RIDs and CM/ED Functional Area requirements.

Program Management activities:

- Staff experienced personnel to perform engineering support on special projects related to the CM/ED Functional Area.
- Perform assessments to verify and review the quality and effectiveness of engineering processes.

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 3
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE NORM PENNINGTON 648-6444	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NDAAU	13. TASK DESCRIPTION (ONE LINE) CENTRAL ENGINEERING		

14. ELEMENT TASK DESCRIPTION

- Provide technical support for Safety Analysis, ALARA Reviews, and Technical Review Board actions.

- Development and oversight of department budget.

- Planning, management, and assessment of Engineering Services subcontracts including contract negotiations, and scope development. This includes closeout of the Parsons/ERA contracts, such as completion of project and task orders, reconciliation of selected project records, and de-mobilization of project technical personnel.

- Providing A/E oversight such as development and review of solicitations, technical evaluation, and award and oversight of subcontract(s) tasks which support the FEMP.

ENGINEERING SERVICES

- Prepare generic specifications for acquisitions.

COMPUTER AIDED DESIGN AND DRAFTING

- Record keeping and maintenance of FEMP centralized historical and as-built drawing files.

- Control A/E subcontractor files.

- Maintain drawing reproduction, plotting capabilities, and state of the art Computer Aided Design and Drafting (CADD) software and hardware.

TECHNICAL REVIEW BOARD

Staff experienced personnel to perform enhanced Technical Review Board (TRB) activities and oversight actions for the FEMP.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 4
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE NORM PENNINGTON 648-6444	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NDAAU	13. TASK DESCRIPTION (ONE LINE) CENTRAL ENGINEERING		

14. ELEMENT TASK DESCRIPTION
<p><u>d. WORK SPECIFICALLY EXCLUDED:</u></p> <p>-All OU and landlord technical work which is specifically identified in those respective budgets.</p>

SECTION 5

1.0 NARRATIVE

1. PROJECT TITLE: PROGRAM SUPPORT and OVERSIGHT	2. DATE: 09/10/01	3. PBS#: 12
4. WBS ELEMENT CODE: 1.1.N.D	5. WBS ELEMENT TITLE: SITE CLOSURE	
6. CAM NAME/ PHONE: TERRY HAGEN/5261	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: NDAA	

PART 4: SITE CLOSURE (NDAA)

Section 5: Central Engineering (NDAAU)

1.0 NARRATIVE

1.1 OVERVIEW

Engineering Services performs the Configuration Management (CM) and Engineering Design (ED) Functional Area responsibilities, provides and administers Task Order Architect-Engineering subcontracts and various CADD and drawing services. This charge number is responsible for all costs not directly allocable to the projects. This is a level of effort account.

1.2 ASSUMPTIONS/ EXCLUSIONS

1.2.1 Assumptions

1. The following assumptions are related to the Functional Area effort:
 - The site procedures group will provide formatting, typing and processing services for new and revised Functional Area documents without charge to Engineering services.
 - The site procedure system will not significantly change causing format changes, review changes, etc that add effort in developing or revising procedures.
 - Quality Assurance support for CM and ED Functional Area assessments will be funded by QA.
 - Projects will fund cost of project personnel supporting CM and ED Functional Area assessments.
 - DOE O 413.3 will not be interpreted to add requirements above those already implemented under DOE O 430.1A.
2. The following requirements are applicable:
 - Contract, Attachment 2, S/RID requirements as of Contract Award, 11/20/2000 identified on FUNCTIONAL AREA MATRIX ASSIGNMENTS for CM and ED dated 1/23/2001.
 - Contract, H.7, Self Performance, b. and d. requirements as of Contract Award, 11/20/2000.

- RM-0016 Rev 42, Management Plan, Section 3, Functional Area Requirements
 - MS-0010, Rev 4, Self Assessment of Fluor Fernald Requirements
 - RM-0016, Management Plan, CH-2026 Rev 2, Technical Review Board Charter
3. The following assumptions apply to Task Order A-E and/or Teaming Partner Task Order coordination:
- Projects/Support Organizations will supply technical coordination and support.
 - Projects/Support Organizations will fund A-E/ Teaming Partner costs to manage and produce the design (i.e. Task Order amount).
 - New contracts will need to be written, issued for proposals and awarded in March of 2004. The period of performance will be through closure.
 - Acquisitions will fund their costs relative to award and administration of Task Order contracts.
4. The following assumptions apply to engineering support to Support Organizations/Projects:
- Support or consultants for independent design reviews, special investigations and reports, when requested, will be funded by the Support Organizations/Projects.
 - The risk of continued support for projects is dependent on their future needs.
5. The following assumptions apply to CADD Services
- Labor and special materials, special tools or special equipment costs for project/Support Organization specific work will be charged to the project/Support Organization. "Special" means any items that are only used by a specific project/support organization and are not normally supplied by CADD. Standard drafting supplies and existing CADD equipment and software are not "special". Examples of labor charged out are:
 - Project design drafting
 - Facility Engineering drafting
 - Penetration Permit drawings
 - DCNs

1.2.2 Exclusions

1. Cost of personnel moves are not included.
2. Cost of trainers and training, except labor for personnel being trained, is not included.

1.2.3 Government Furnished Equipment/Services

None

1. CADD Equipment including server and Microstation and Autocad software
2. Computers with standard software for each employee in the group
3. Office Furniture
4. Equipment maintenance as required
5. No DOE furnished services are anticipated.

1.3 DRIVERS

1. Functional Area activities are primarily driven by the number of projects with active design activities. The following is a tabulation of projects with active design activities:

	FY 02				FY 03				FY 04				FY 05				FY 06				FY 07				FY 08			
QUARTERS:	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PROJECTS:	2	2	2	3	4	4	2	2	2	2	3	3	4	4	2	2	2	2	2	2	2	2	2	2	1	1	1	1

2. Drawing (CADD) activities supporting engineers will continue through closure and are a function of the number of engineers except during the last two years an increased activity is expected to support closure documentation.
3. Task Orders will continue through closure and are a function of the number of projects.

1.4 SCOPE OF WORK

1.4.1 Task #1 - Functional Area Scope

The scope of work provided by Functional Area Scope in FY01 includes the following scope:

1. Perform a one time in-depth review of requirements, implementing documents and Training/Qualification Standards lasting for 12 months and consisting of the following:
 - Identify detail requirements for Configuration Management (CM) and Engineering Design (ED) from the S/RID.
 - Determine, using flow diagramming and other appropriate methods, the processes for using engineering resources for the contract duration (Fluor Fernald self perform, teaming partner self perform, project subcontract, Task Order subcontract).
 - Evaluate/develop/revise ED implementing documents (RMs, Procedures, standards, subcontracts) to incorporate contractual standards and requirements consistent with methods of performing engineering.
 - Evaluate/develop/revise CM implementing documents (RMs, Procedures) to incorporate contractual standards and requirements consistent with methods of performing work.

- Establish Training/Qualification Standards, that are consistent with the levels of competency required to implement the ED and CM implementing documents, for all Fluor Fernald engineering personnel.

2. Ongoing activities:

- Perform quarterly assessments of project compliance with ED and CM implementing documents by reviewing existing QA/QC assessments, reviewing project documentation and interviewing engineering personnel within the project. Project participation, excluding any corrective actions, will be approximately one week per assessment. The effort will be coordinated with QA in order to avoid duplicating efforts. Planned assessments will be:

FY	QUARTER	PROJECT
02	1	FACILITY ENGINEERING
	2	SILOS
	3	WASTE GENERATOR SERVICES
	4	AQUIFER/AWWT
03	1	NUCLEAR MATERIAL
	2	FACILITY ENGINEERING
	3	SILOS
	4	AQUIFER/AWWT
04	1	SOILS
	2	FACILITY ENGINEERING
	3	OSDF
	4	FUNCTIONAL AREA TRAINING (ENGR SERV)
05	1	SOILS
	2	D&D
	3	FACILITY ENGINEERING
	4	FUNCTIONAL AREA TRAINING (ENGR SERV)
06	1	SOILS
	2	
	3	
	4	FACILITY ENGINEERING
07	1	SOILS
	2	
	3	
	4	FACILITY ENGINEERING
08	1	
	2	
	3	FACILITY ENGINEERING

- Perform annual self-assessment of CM and ED Functional Areas following MS-0010.

- As part of the Functional Area Self Assessment, evaluate applicability/appropriateness of ED and CM requirements to project work and recommend/support deletion of requirements when not adding value.
- Maintain Training/Qualification standards and records for all (approximately 100) Fluor Fernald engineering personnel by:
 - Identifying Fluor Fernald engineering personnel
 - Providing notification of new and incomplete TQP requirements to engineers and supervisors
 - Maintaining the database of engineering TQP compliance status
- Manage the TRB (assuming approximately 15 submittals per year) by:
 - Chairing the TRB
 - Providing coordination including interface with projects to ensure adequacy of submittals
 - Issuing project submittals for Blue Sheet Review and coordinating comments with projects
 - Maintaining records including meeting minutes
 - Reviewing project submittals
 - Serving as technical expert for TRB procedures
 - Arranging meetings

1.4.2 Task #2 - A-E and/or Teaming Partner Task Order Coordination

The scope of work provided by A-E and/or Teaming Partner Task Order Coordination in FY01 includes the following scope:

1. Establish and maintain two A/E Task Order contracts.
 - Support contract revisions and monthly reviews of reports.
 - Support extensions of 2 existing contracts in March 02 and 03.
 - Write RFP, support procurement and award 2 new contracts in March 04.
 - Meet with A/E representatives monthly to review contract/Task Order status
2. Establish working arrangement with Teaming Partner to facilitate design support, including development of justification, obtaining approvals, developing process and providing necessary documentation in conjunction with Teaming Partner.
 - Establish Teaming Partner contact to work out process
 - Establish criteria for using Teaming Partner
 - With Acquisitions, ensure that applicable contract requirements are met.
 - With Teaming Partner contact, establish process for issuing and performing and measuring Task Order work.
 - Make three trips to Oak Ridge, Tn. with two people lasting two days each to work out arrangement details.

3. Function as liaison between projects, acquisitions and A/E serving as "contracting officer's technical representative."
 - Assume a maximum of 20 active Task Orders at any time.
 - Receive and review Task Order requests for adequacy and conformance with contracts or agreement.
 - Process Task Order through Acquisitions
 - Hold alignment meeting with project and A-E
 - Assist in resolving estimate issues.
 - Assist in resolving administrative issues.
 - Process invoices for approval by project
 - Verify completion of the Task Order and process close out for Acquisitions.
4. Perform semi-annual assessments of A/E contract and Teaming Partner Task Order compliance including visits to A/Es and review of project documents.
 - Four trips per year for 3 days each to Oak Ridge.

1.4.3 Task #3 - Projects/Support Organizations

The scope of work provided by Projects/Support Organizations in FY01 includes the following scope:

1. Administer approximately 200 Requests for Engineering Services (RES) per year.
 - Receive and log RES
 - Assign RES to appropriate group (Facility Engineering, CADD, Task Order)
 - Maintain files
2. Maintain active engineering records.
3. Maintain generic engineering specifications and standards.
 - Approximately 25 developed by Facility Engineering
 - Approximately 50 developed by A/Es
 - Update from feedback from use
 - Update due to code/requirement changes
 - Support acquisitions with requisition review per AC-0001, Rev 13.
4. Support change control effort with evaluations and estimating input of approximately 5 hours per week

1.4.4 Task #4 - CADD Services

The scope of work provided by CADD Services in FY01 includes the following scope:

1. Maintain site infrastructure as-built drawings. CADD Services currently has close to 55,000 original indexed FEMP drawings from

1951 to present. They are stored flat in (421) flat file drawers in room B-011 Springdale basement. These drawings represent contract drawings from numerous vendors, A/Es and Prime Contractors. CADD Services maintains master as-built underground /overhead utilities, floor and trailer plans, site plans, trailer composites, fire protection composites, configuration controlled drawings such as Honeywell fire and RDA alarms, site contours and A/E as-built packages through the processing of work completed DCNs, field surveys and redlined drawings.

2. Provide support for Graphics, Science Bowl, annual environmental reports (NESHAP and SARA312) and quarterly Phone Book update.
3. Provide configuration control for electronic and hard copy engineering drawings. CADD Services serves as the starting point to create FEMP drawings, revise FEMP drawings and indexing vendor drawings applicable to on-going site projects. CADD Services works in concert with Procedures and Document Distribution Services (ECDC) for drawing control and distribution. CADD Services is the repository for A/E close-out of hand-drawings, digital drawings and sketches. CADD Services maintains numerous MS-Access databases assuring easy retrieval of documents and drawings.
4. Provide drawing coordination with A/Es and vendors with CAD standards, FEMP drawing numbers and master design files. Provides engineering FTP capabilities between A/Es and FEMP by maintaining FTP site directory maintenance. Acts as the focal point in receiving and transmitting design file necessary for A/E project execution.
5. Provide limited retrieval and reproduction services to the site by offering full size drawing copying capabilities, aperture card copies and historical data search and copy. CADD Services maintains a working set of 35mm aperture cards at Springdale displaying the latest revisions of about 55,000 drawings, and maintains a master record set located at the Records Center. The record set contains aperture cards of previous revisions to a drawing.
6. Archive custodian for historical, subcontractor developed and current site drawings and data. CADD Services created and maintains databases of historical data and drawings. Included in these databases is the inventory from: NLO construction proposals (CPs) from 1951 to 1983 contained in (164) boxes, NLO/WMCO/WEMCO Engineering projects contained in (61) boxes and (41) lateral filing cabinets, FMPC vendor files from CCC (Catalytic Construction Co.) contained in (26) lateral file drawers, FMPC vendor files from S&B (Singmaster and Breyer contained in (14) lateral file cabinets, FMPC vendor files from AMK (A.M. Kinney) contained in (3) lateral file cabinets, FMPC/FEMP RES (Request for Engineering Services) contained in (70) boxes and (4) lateral file cabinets, and (16) lateral file cabinets of miscellaneous site data in the form of specs and publications.

7. Will develop, with Records Management and DOE, guidance for archiving historical and architecturally significant drawings and data. Will provide services to send drawings and project data to Archives in accordance with records retention schedule requirements.
8. Provide administration of CADD Services workstations, plotters and printers. Provide for the functionality of (11) dual screen CAD workstations, (1) single CAD screen workstation, (3) data servers, (4) laser printers, (2) color plotters, (2) b/w plotters, (1) plot server, (2) large document scanners, (1) optical jukebox, (2) engineering copiers, (1) processing camera and (1) aperture card copier. CADD Services also maintains the functionality of a workstation and laser printer located in the EOC (Emergency Operations Center) in the Administration Building. CADD Services is represented as an EOC Team Member. CADD Services controls the structure and integrity of its NT servers by providing for its backups and restore routines. Also provides for the archival restores from archival backup tapes from Parsons, GIS Section, WEMCO and Fluor-Fernald.
9. Control FEMP drawing, building and trailer numbers.
10. Provide for the annual CADD/GIS Maintenance Agreements for hardware and software. Included are agreements with Bentley for Microstation graphic software (our main drawing software) and Intergraph for workstations, plotters, printers and other software.
11. Provide for the replacements and upgrades for CADD Services drawing reproduction equipment, servers, plotters, printers and workstations. Assume a 4 year life-cycle replacement plan.
12. Operates OCE 9400 document control system which now interfaces with ECD COE 9600.
13. Perform drafting services for Land Use Authority

1.4.5 Task #5 - General Engineering Services

The scope of work provided by General Engineering Services in FY01 includes the following scope:

1. Provide office supplies, reproduction paper and miscellaneous tools and equipment except as excluded or limited above.
2. Provide labor for Engineering Services personnel for compliance training.
3. Provide labor, material and subcontract costs for software and equipment upgrade training for Engineering Services personnel.
4. Provide job related professional development for Engineering Services personnel.
5. Travel to site and A-E offices by Engineering Services personnel.
6. Management general activities and Portfolio assignments including:
 - CT and MS Functional Area Technical Expert responsibilities related to assigned S/RID, including monthly meeting.

- Monthly subcontractor oversight committee meeting.
- Manpower planning, performance evaluations, salary planning, coaching
- Weekly staff meetings

The plan for performing the above Engineering Services scope (Tasks 1 through 5) is to continue the above services until services are modified as follows:

1. After FY02 through FY05 Engineering and Functional Area support decreases due to project completions and stabilization of Functional Area oversight.
2. After FY05 through FY08 as needed project support lessens, a program manager, a clerk, and a CADD operator will not be needed.
3. In FY09, a clerk will be added for records processing and the need for an engineer and an engineering manager will be reduced.
1. After FY02, Engineering and Functional Area Support decreases due to stabilization of Functional Area Oversight and Project completion.
2. As projects are completed, the Engineering Service activities decreases as the site population decreases.
3. In FY10, the balance of the organization will be absorbed into Admin Support.

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The quantification for Engineering Services is based primarily on Fluor Fernald, Inc. project manpower. The resource requirements summary for this and the correlation with site manpower is shown in the following table:

	01	02	03	04	05	06	07	08	09	10
Site Population (FTE)	1,940	1,432	1,389	1,133	1,470	1,179	814	427	239	98
Functional Area Support	3.5 3	3.5 3	1.8 2	1.5	1.5	1.0 5	0.9 5	0.8 5	0.4 4	0
Engineering Support	5.9	5.5 4.5 3.5	4.2 3.5 2.5	3.0 2.9 1.9	3.0 2.4 1.4	1.9 2.3 1.3	1.4 2.3 1.3	1.3 2.4 1.4	1 1.2 0.2	0.1 0
CADD Support	8.9	9.2 5.5	8.4 5.5	8.4 5.5	8.4 4.5	5.3 4.5	4.3 3.5	5.0 3.5	6 3.5	1 0.25

R1-F12-057

R1-D-002

R1-F12-057

R1-F12-015

SECTION 5

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1ND05 CENTRAL ENGINEERING

DRIVERS	START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007	39.00	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
301 OSDF Summary Schedule	04/01/2004	12/23/2009	70.90	13	13	6.2	6.2	3	3	3	3	3	3	1	1	1.1	1.1	1	0.8	1	1	1	1	0.8	0.2	0.1	0.2
411 AWWT Operations	10/02/2000	12/31/2009	113.20	9	9	5.1	5.1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
502 WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005	50.00	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
601 Soils Excavation Project Summary	10/01/2003	12/31/2009	33.50	1	1	1	1	1	1	1	1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
704 Silos AWR Summary	10/02/2000	10/23/2003	7.50	1	1	1	1	1	1	1	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008	22.60	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5	0.5
801 Nuclear Materials Summary	10/02/2000	05/29/2002																									
1001 Mixed Waste Summary	10/02/2000	09/30/2003																									
1101 Low Level Waste Summary	10/02/2000	09/30/2005																									
Engineering & Design																											
Engineer Manager																											
Engineering & Design																											
Engineer																											
Engineering & Design																											
Drafter/CAD Operator																											
Clerks																											
Engineering & Design																											
Engineer & Construction Tech.																											
Program Mgr.																											
Secretaries																											
Sheet Totals:				336.70	28.00	28.00	18.30	18.30	12.00	12.00	11.50	10.90	8.90	8.90	9.00	8.70	7.40	7.40	7.10	6.50	6.40	6.50					

MPS # 1ND05 CENTRAL ENGINEERING

DRIVERS		START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201	D&D Summary	10/02/2000	03/30/2007	xxx	xxx																		
301	OSDF Summary Schedule	04/01/2004	12/23/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
411	AAWT Operations	10/02/2000	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
502	WASTE PIT SHIP/DISPOSAL OPERATION	10/02/2000	08/01/2005	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
601	Soils Excavation Project Summary	10/01/2003	12/31/2009	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
704	Silos AWR Summary	10/02/2000	10/23/2003																				
710	Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008	xxx	xxx	xxx	xxx	xxx	xxx														
801	Nuclear Materials Summary	10/02/2000	05/20/2002																				
1001	Mixed Waste Summary	10/02/2000	09/30/2003																				
1101	Low Level Waste Summary	10/02/2000	09/30/2005																				
Engineering & Design		Engineer	Manager	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	
Engineering & Design		Engineer		0.4	0.1	0.1	0.1	0.8	0.5	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	
Engineering & Design		Drafter/CAD Operator		2	2	2	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	0	
Administration		Clerks		1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	
Engineering & Design		Engineer & Construction Tech.		0.5	0.5	1	1	4	0.4	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0	0	0	0	0	0	
Project Management		Program Mgr.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Administration		Secretaries		0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0	0	0	0	0	0	0	0	0	0	0	
Sheet Totals:				5.30	4.90	5.40	5.40	9.20	5.30	5.70	5.00	4.80	4.80	4.80	3.70	1.00	0.00	0.00	0.00	0.00	0.00	0.00	

SECTION 5

3.0 ESTIMATE

NDAAU

CENTRAL ENGINEERING

Fluor Fernald, Inc.

PBS:	12	DATE:	10-Sep-01
WBS:	1.1.N.D.	PROJECT MGR:	NORM PENNINGTON
CTRL ACCT:	NDAU	CAM:	TERRY HAGEN
CHARGE NO:	NDAU	PREPARED BY:	TRACY BRAUN
COMMENT NO:12-015, 12-057, 12-060		FISCAL YEAR:	FY01 - FY10

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

Resource:	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS	CLERKS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Resource:	DRFCAD	DRAFTER/CAD OPERATOR	Class:	EOC: SAL	LABOR	EOC: SAL	LABOR	EOC: SAL	LABOR	EOC: SAL	
Res Dept:											
		Oct 00- Sep 01	Oct 01- Sep 02	Oct 02- Sep 03	Oct 03- Sep 04	Oct 04- Sep 05	Oct 05- Sep 06	Oct 06- Sep 07	Oct 07- Sep 08	Oct 08- Sep 09	Oct 09- Sep 10
Yr Hours:		9,624.3	5,241.0	5,241.0	5,241.0	5,241.0	5,241.0	3,494.0	3,494.0	3,494.0	387.0
Cum Hours:		9,624.3	14,865.3	20,106.3	25,347.3	30,588.3	35,829.3	39,323.3	42,817.3	46,311.3	46,698.3
Yr Total Cost:		300,182	172,062	182,248	192,993	204,434	218,415	157,853	166,379	184,893	21,110
Cum Total Cost:		300,182	472,244	654,492	847,485	1,051,919	1,270,334	1,428,187	1,594,566	1,779,459	1,800,569

Resource:	E&CTEC	ENG & CONST TECH	Class:		EOC:	LABOR					
Res Dept:		Overtime:			SAL						
		Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
		Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
Yr Hours:		1,452.0	1,747.0	1,572.3	1,572.3	1,572.3	1,397.6	1,332.5	2,484.7	1,178.8	0.0
Cum Hours:		1,452.0	3,199.0	4,771.3	6,343.6	7,915.9	9,313.5	10,646.0	13,130.7	14,309.5	14,309.5
Yr Total Cost:		38,826	49,171	46,874	49,637	52,580	49,934	51,611	101,437	53,479	0
Cum Total Cost:		38,826	87,998	134,871	184,509	237,089	287,023	338,634	440,071	493,550	493,550

Resource:	ENGINEER	ENGINEER Overtime:	Class:		EOC:	LABOR				
Res Dept:					SAL					
Yr Hours:	Oct 00-	Oct 01-	Oct 02-	Oct 03-		Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-
	Sep 01	Sep 02	Sep 03	Sep 04		Sep 05	Sep 06	Sep 07	Sep 08	Sep 09
Cum Hours:	12,871.6	5,241.0	3,475.0	1,745.2		1,747.0	541.6	292.9	913.3	174.7
	12,871.6	18,112.6	21,587.6	23,332.8		25,079.8	25,621.4	25,914.3	26,827.6	27,002.3
Yr Total Cost:	885,051	379,319	266,394	141,675		150,228	49,759	29,172	95,876	20,380
	885,051	1,264,371	1,530,764	1,672,439		1,822,668	1,872,426	1,901,599	1,997,474	2,017,855
Cum Total Cost:										

Resource: **ENG MGR** **ENGINEERING MGR** **LABOR**
 Res Dept: **EOC:**
 SAL
 Class:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	2,904.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	1,306.0	0.0
Cum Hours:	2,904.0	4,651.0	6,398.0	8,145.0	9,892.0	11,639.0	13,386.0	15,133.0	16,439.0	16,439.0
Yr Total Cost:	173,659	109,964	116,474	123,341	130,652	139,588	151,324	159,497	132,503	0
Cum Total Cost:	173,659	283,623	400,096	523,437	654,090	793,677	945,002	1,104,499	1,237,002	1,237,002

Resource: **MAT300** **MATERIAL OBJCLASS300** **MATERIAL**
 Res Dept: **EOC:**
 MAT
 Class:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Units:	115,126.0	173,831.0	87,742.0	58,032.0	88,485.0	33,926.0	58,147.0	15,322.0	11,152.0	1,927.0
Cum Units:	115,126.0	288,957.0	376,699.0	434,731.0	523,216.0	557,142.0	615,289.0	630,611.0	641,763.0	643,690.0
Yr Total Cost:	115,126	178,524	92,544	62,922	98,627	38,911	68,625	18,608	13,936	2,478
Cum Total Cost:	115,126	293,650	386,194	449,116	547,744	586,655	655,280	673,888	687,824	690,302

Resource: **ODCTRVL** **TRAVEL RESOURCE** **ODC**
 Res Dept: **EOC:**
 ODC
 Class:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Units:	21,755.0	30,187.0	20,297.0	19,006.0	19,006.0	15,032.0	13,680.0	14,158.0	4,994.0	146.0
Cum Units:	21,755.0	51,942.0	72,239.0	91,245.0	110,251.0	125,283.0	138,963.0	153,121.0	158,115.0	158,261.0
Yr Total Cost:	21,755	31,002	21,408	20,607	21,184	17,241	16,145	17,194	6,241	188
Cum Total Cost:	21,755	52,757	74,165	94,772	115,957	133,198	149,343	166,537	172,778	172,965

Resource: **PROMGR** **PROGRAM MGR** **LABOR**
 Res Dept: **EOC:**
 SAL
 Class:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	1,452.0	1,526.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	2,978.0	2,978.0	2,978.0	2,978.0	2,978.0	2,978.0	2,978.0	2,978.0	2,978.0
Yr Total Cost:	136,503	151,002	0	0	0	0	0	0	0	0
Cum Total Cost:	136,503	287,505	287,505	287,505	287,505	287,505	287,505	287,505	287,505	287,505

Resource: SECRET SECRETARIES
Res Dept: Overtime:

	SUBS		SERVSUB		EOC:		LABOR		EOC:	
	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	Sep 01 1,452.0	Sep 02 1,747.0	Sep 03 1,747.0	Sep 04 1,747.0	Sep 05 873.5	Sep 06 873.5	Sep 07 563.5	Sep 08 565.8	Sep 09 0.0	Sep 10 0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	7,566.5	8,440.0	9,003.5	9,569.3	9,569.3	9,569.3
Yr Total Cost:	32,423	41,062	43,493	46,057	24,394	26,062	18,226	19,289	0	0
Cum Total Cost:	32,423	73,485	116,977	163,034	187,428	213,490	231,716	251,005	251,005	251,005

Resource: SUBS SUBS
Res Dept: Overtime:

	SUBS		SERVSUB		EOC:		LABOR		EOC:	
	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Units:	Sep 01 341,000.0	Sep 02 346,360.0	Sep 03 323,151.0	Sep 04 321,764.0	Sep 05 321,764.0	Sep 06 228,752.0	Sep 07 194,006.0	Sep 08 205,041.0	Sep 09 230,012.0	Sep 10 4,162.0
Cum Units:	341,000.0	687,360.0	1,010,511.0	1,332,275.0	1,654,039.0	1,882,791.0	2,076,797.0	2,281,838.0	2,511,850.0	2,516,012.0
Yr Total Cost:	341,000	355,712	340,837	348,876	358,645	262,366	228,967	249,008	287,435	5,352
Cum Total Cost:	341,000	696,712	1,037,548	1,386,425	1,745,070	2,007,435	2,236,403	2,485,411	2,772,846	2,778,197

GRAND TOTALS:

Yr Hours:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Sep 01	32,090.9	20,743.0	17,276.3	15,546.5	12,927.8	11,547.7	9,176.9	10,951.8	7,900.5	387.0
Cum Hours:	32,090.9	52,833.9	70,110.2	85,656.7	98,584.5	110,132.2	119,309.1	130,260.9	138,161.4	138,548.4
Yr Total Cost:	2,100,309	1,555,679	1,203,332	1,084,658	1,092,940	858,041	782,378	891,006	769,677	29,128
Cum Total Cost:	2,100,309	3,655,988	4,859,319	5,943,977	7,036,918	7,894,958	8,677,337	9,568,343	10,338,020	10,367,148

CAM

CONTROL TEAM

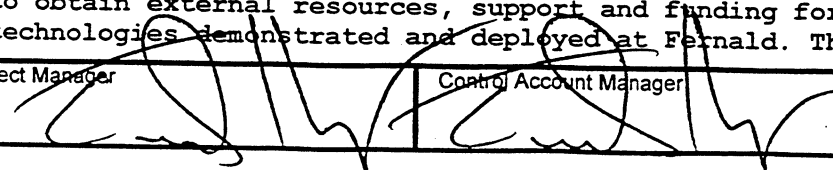
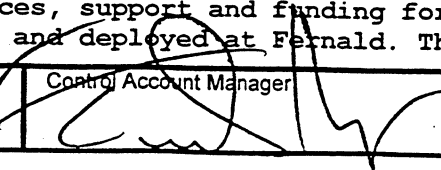
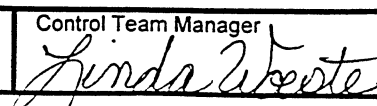
SECTION 5

4.0 RISK PLAN

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WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 1
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE PAUL PETTIT 648-4960	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
12. TASK IDENTIFICATION (WORK PACKAGE) NDAAV	13. TASK DESCRIPTION (ONE LINE) TECHNOLOGY PROGRAMS		
14. ELEMENT TASK DESCRIPTION <div style="margin-top: 20px;"><u>a. ELEMENTS OF COST:</u> Labor Material Subcontracts ODCs</div> <div style="margin-top: 20px;"><u>b. TECHNICAL CONTENT:</u> Fluor Fernald Technology Programs (TP) will develop and provide oversight for new technology, will interface with DOE on technology programs, and will manage the technical interface for the Fluor Fernald Technical University Applications function. The TP scope of work will include integrating elements of DOE's technology program into the Fernald environmental restoration activities and other programs as directed by the Contracting Officer. TP will support the DOE's Site Technology Programs Coordination Group (STCG) and will provide a link between the national technology program, regulators, stakeholders, DOE technology Focus Areas and the FEMP. The TP scope of work will include investigation of the need for, and sources of new and improved technology, and will include the management of the use of innovative technologies, approaches and processes in environmental restoration, waste management, projects, safety and support of post-closure and long term stewardship. TP will draw upon all available sources of new and improved technology, including the DOE Office of Science and Technology (OST), commercial industry, other government agencies, and universities. Fluor Fernald TP will identify technology needs relating to priority projects and needs specified by Fluor Fernald Project management, and will identify opportunities and sources of new and improved technology to address Fernald's identified priority needs. TP will identify, develop and pursue opportunities to obtain external resources, support and funding for getting priority technologies demonstrated and deployed at Fernald. The TP scope of work will</div>			
Project Manager 		Control Account Manager 	Control Team Manager 

WORK SCOPE DEFINITION (Work Package)

1. PROJECT TITLE FEMP (DEFENSE)		2. DATE 12/01/2000	Page 2
3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE PAUL PETTIT 648-4960	7. WBS ELEMENT MANAGER TERRY HAGEN	
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10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
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14. ELEMENT TASK DESCRIPTION

include conducting demonstrations and deployments of new technology initiatives designed to directly enhance the efficiency, lower the cost or improve the safety of remediation activities and/or of post-closure and stewardship on priority FEMP projects, as determined by Fluor Fernald project management.

c. SCOPE OF WORK:

Identify FEMP technology needs relating to priority Projects specified by Fluor Fernald management. Interface with DOE on technology programs. Support the DOE's Site Technology Coordination Group, which provides a link between the national technology program, regulators, stakeholders, focus areas and the FEMP. Hold quarterly STCG meetings. (Develop agenda and arrange required support; Coordinate with stakeholders and other participants; Report results of meeting; and Conduct follow up activities).

Develop and maintain appropriate links (relationships, liaisons) with the DOE national technology program and related areas. (DOE Office of Science and Technology (EM-50) and other HQ management; Focus Area management; Other sites, national laboratories, etc., as appropriate; DOE-OH technology program management).

Participate in the DOE-Ohio STCG.

Participate in, and/or support Focus Area mid-year and year-end reviews.

Develop and maintain appropriate links (relationships, liaisons) with the Fernald project management and related functions.

Identify technology needs specific to the priorities, as established by the Fluor Fernald Leadership Team and by the FEMP projects.

Perform detailed validation of the technology need with comprehensive consideration of the Fernald Baseline, plan and site-wide impact.

Participate in the Focus Area detail reviews of technology needs. (Coordinate with Focus Area management; Develop agenda and arrange required support; Report results of meeting; Report technology needs into required systems, including IPABS.)

Develop detail needs statements for targeted resolution.

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3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE PAUL PETTIT 648-4960	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
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14. ELEMENT TASK DESCRIPTION

Prepare reports for DOE systems.
 Support requirements that originate from coordination with DOE HQ EM-30. (Coordination, communication with EM-30 representative; Technology Information Exchange (TIE) Workshop planning, support and participation).
 Support for DOE-FEMP. (Prepare for presentations at Ohio Summit, Mid/Year-end Reviews; Special meetings and presentations; Support DOE Technology Program Officer (TPO) and DOE project managers for required and mandatory meetings; Support reviews by DOE management).
 Support requirements that originate from coordination with DOE-OH. (Support special requirements from Director (meetings, reports); Support DOE-OH TPO as required by DOE-FEMP (meetings, quarterly IPABS review/travel, reports); Coordinate with other Ohio sites technology initiatives.
 Manage the Fluor Fernald Technology Programs organization.

- Safety assurance
- Perform duties of Functional Area Manager (FAM) for R&D and Experimental Activities and S/RID requirements
- Conduct required Scientific and Technical Information (STI) management
- Administration of TP Department
- Attend training per established training profiles
- Conduct Control Team Activities
- Conduct procurement activities
- . Write, coordinate, negotiate, maintain and set-up in CMMS Basic Ordering Agreements for universities (UC, Miami, FIU, AWU, and others as needed by Project organizations from time to time.), and contracts for technology vendors or specialty resource contractors to be used in demonstrations and deployments of improved technology
- . Conduct market research with Project Managers to identify suitable sources for subcontract services
- . Develop Request for Proposal packages
- . Receive and evaluate proposals - participate in Best Value committees to score proposals
- . Negotiate contracts as required in support of authorized contracting and procurement organizations
- . Document files following Acquisition Practices (considerations for small business, other procurement factors, DOE consents, management coordination(s), Conflict of Interest, Negotiation Memorandum, other data)
- . Assemble file in accordance with Acquisition Practices

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3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE PAUL PETTIT 648-4960	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
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14. ELEMENT TASK DESCRIPTION

- Conduct contract administration activities

Identify opportunities and sources of technology to address FEMP specific priority needs identified in Scope of Work Item 1. Identify, develop, and pursue opportunities to obtain external resources, support and funding for getting priority innovative technologies into Fernald. Provide oversight for new technology, manage Technical University Programs. Investigate and manage the use of innovative technologies, approaches and processes in environmental restoration, waste management projects and safety. The Contractor shall draw upon all available sources including the Office of Science and Technology, commercial industry, other governmental agencies, and universities. Develop and maintain appropriate links (relationships, liaisons) with the Fernald project management and related functions.

Search all sources for improved, innovative technology options to fill needs. (Commercial/ industrial sources; DOE sources: EM-50, EM-30, EM-40 (other sites), National Laboratories; Universities; Non-DOE and other Government sites and programs, including military; Trade shows and other industry activities; Conferences, meetings; Visits and interfaces with vendors, developers and providers; Literature search functions).

Develop appropriate detailed understanding and quantification of conditions, risks, impacts, and schedule and coordination requirements relating to the potential deployment of a new technology to address project needs determined from first Section of Scope.

- Appropriately engage Technology Programs staff and resources with Project, and/or co-locate Technology Programs staff with Project, and/or attach Technology Programs staff to Project

- Conduct appropriate management coordination and engagement (Fluor Project Management, Fluor VP Project Execution, Fluor Transition management, Fluor Cost and Schedule Improvement Team)

Identify new, innovative and improved technologies that address FEMP needs.

(Prepare preliminary cost/benefit analysis; Validate need, estimated impact; Outline requirements for validating (demonstrating) the new technology).

Produce a list of new technologies that may be deployable at the FEMP in the near-term, at low cost and low risk (Opportunities targeted for quick action).

Produce a list of new technologies that may be deployable at the FEMP in the longer term, at higher cost and higher risk (Opportunities targeted for pursuit jointly by the FEMP and other resource organizations, including EM-50, Focus

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3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE PAUL PETTIT 648-4960	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
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14. ELEMENT TASK DESCRIPTION

Areas, and others, through ASTD projects, LSDDP proposals, etc.). Identify new opportunities for Fernald to obtain funding, resources or support for use in conducting Fernald-led initiatives for deploying new or improved technology.

- Track DOE Budget cycle
- Obtain information on other sources of funds or resources
- Provide information to Fernald Project management and to budget decision makers on FEMP technology options

Pursue opportunities to obtain additional funding and resources for supporting targeted Fernald technology initiatives.

- Develop "Capture Plans" for individual initiatives
- Assign a capture manager and team to pursue each initiative
- Develop the constituency and support at all levels and in all organizations required for success of initiatives
- Develop proposals for submission to appropriate DOE organizations or other organizations. Proposals may be solicited or unsolicited based upon FEMP needs
- Inform and align DOE-Ohio and DOE-FEMP management as required for support of the initiative
- Obtain products from DOE-OH and DOE-FEMP as required for support of proposals and initiatives
- Obtain products and services from other DOE sites and/or from others as required for support of proposals and initiatives
- Present proposals and provide support as required for explanation, clarification, and appropriate adjustment

Operate the Fluor Fernald University Applications Program to support FEMP Projects in a manner that is closely coordinated with the other efforts by Technology Programs. Fluor Fernald has established partnerships or other business relationships with local universities and institutions and members of the Historically Black Colleges and Universities/ Minority Institutions Environmental Technologies Consortium (HBCU/MI ETC). Operate the University Applications Program to provide Fluor Projects with requested services of appropriate and/or special technical skills, and to support the demonstration of technologies targeted as low risk, low cost, near-term need.

- . Provide project managers with university-based solutions for technical issues
- . Call and meet with project managers to understand their technical needs
- . Meet with senior management to coordinate technical needs within a project and across the site.

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3. WBS ELEMENT CODE 1.1.N.D	4. WBS ELEMENT TITLE/NAME SITE CLOSURE		
5. PERFORMING DIV/DEPARTMENT CODE 45	6. ORIGINATOR NAME/PHONE PAUL PETTIT 648-4960	7. WBS ELEMENT MANAGER TERRY HAGEN	
8. BUDGET AND REPORTING NUMBER EW05H3120	9. BUDGET TITLE PROGRAM SUPPORT & OVERSIGHT		
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	

12. TASK IDENTIFICATION (WORK PACKAGE) NDAAV	13. TASK DESCRIPTION (ONE LINE) TECHNOLOGY PROGRAMS
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14. ELEMENT TASK DESCRIPTION

- . Work closely with managers (one-on-one meetings, as required for this critical step) to select best source to meet their technical needs, considering urgency, facilities needed, technical specialization requirements, and cost
- . Coordinate with Technology Programs to optimize use of universities in identifying and deploying new technologies
- . Draft statements of work for project managers
- . Work with procurement to issue a task order to the appropriate university or institution through one of several BOAs under which these task orders are placed.
- . Arranges for site access for University and special technical personnel (including foreign national security process), medical and drug screening, and initial training of all university personnel who need to access the Fernald site
- . Maintain a database that tracks key cost and performance information
- . Maintain files of all technical aspects of each task order
- . Monitor success of each task order by project reviews and discussions with project managers and contractor (university) personnel

Conduct demonstrations and deployments of new technology on priority Projects that directly enhance the efficiency, lower the cost or improve the safety of remediation of the FEMP, as determined by Fluor Fernald Project Management. Develop new technology. Conduct technology demonstrations and deployments as directed by the Contracting Officer, in coordination with the DOE Technology Programs Officer, when it is determined to be advantageous to the Department. Confirm agreement among Project management, Technology Programs management, and DOE-FM on technology demonstrations to be pursued. Perform demonstration of technologies targeted as low-risk, low cost, quickly deployable activities.

- Develop demonstration and test criteria based on the preliminary cost/benefit analysis for the technology, the validation of the need, and the comprehensive analysis of impact on the site activities.
- Provide independent consultation and supervision of science and technology aspects of the demonstration.

Prepare documentation as required to obtain specified and necessary direction by DOE Contracting Officer to conduct demonstrations and technology initiatives supported by the DOE Office of Science and Technology and others. (Coordinate with the sponsoring organization and with the appropriate DOE Focus Areas, DOE-HQ and program.)

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10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE? NEW PER CP# FY01-0115-0012-00		11. ESTIMATED START / COMPLETION DATE 12/01/00 - 12/27/09	
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14. ELEMENT TASK DESCRIPTION

Evaluate the results of the demonstrations of innovative technologies. (Prepare cost/benefit analysis, analysis on safety impact, and prepare and present appropriate information to communicate results.)
Deploy new technologies into the FEMP.

d. WORK SPECIFICALLY EXCLUDED:

None.

SECTION 6

1.0 NARRATIVE

1. PROJECT TITLE: PROGRAM SUPPORT AND OVERSIGHT	2. DATE: 09/10/01	3. PBS#: 12
4. WBS ELEMENT CODE: 1.1.N.D	5. WBS ELEMENT TITLE: SITE CLOSURE	
6. CAM NAME/ PHONE: TERRY HAGEN/5261	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9.CONTROL ACCOUNT: NDAA	

PART 4: SITE CLOSURE (NDAA)

Section 6: Technology Programs (NDAAV)

1.0 NARRATIVE

1.1 OVERVIEW

Fluor Fernald Technology Programs (TP) will develop and provide oversight for new technology, will interface with DOE on technology programs, and will manage the technical interface for the Fluor Fernald Technical University Applications function. The TP scope of work will include integrating elements of DOE's technology program into the Fernald environmental restoration activities and other programs as directed by the Contracting Officer. TP will support the DOE's Site Technology Programs Coordination Group (STCG) and will provide a link between the national technology program, regulators, stakeholders, DOE technology Focus Areas and the FEMP. The TP scope of work will include investigation of the need for, and sources of new and improved technology, and will include the management of the use of innovative technologies, approaches and processes in environmental restoration, waste management, projects, safety and support of post-closure and long term stewardship. TP will draw upon all available sources of new and improved technology, including the DOE Office of Science and Technology (OST), commercial industry, other government agencies, and universities.

Fluor Fernald TP will identify technology needs relating to priority projects and needs specified by Fluor Fernald Project management, and will identify opportunities and sources of new and improved technology to address Fernald's identified priority needs. TP will identify, develop and pursue opportunities to obtain external resources, support and funding for getting priority technologies demonstrated and deployed at Fernald. The TP scope of work will include conducting demonstrations and deployments of new technology initiatives designed to directly enhance the efficiency, lower the cost or improve the safety of remediation activities and/or of post-closure and stewardship on priority FEMP projects, as determined by Fluor Fernald project management.

1.2 ASSUMPTIONS/ EXCLUSIONS

1.2.1 Assumptions

1. The DOE-OST continues to be a viable source of funding and resources for direct support of technology demonstrations and deployments at Fernald.
2. The DOE management systems, programs, practices, attitudes and requirements relating to, but not limited to OST, STCG, technology Focus Areas and local and national technology programs remain substantially the same as they were at the start to Fiscal Year 2001.
3. Minimum interruption results from changes in the Administration in the Executive Branch of the government.
4. DOE Contract DE-AC24-01OH20115 with Fluor Fernald, Inc. remains in effect with the same condition as in January 2001.
5. Fluor Fernald senior management clearly defines and communicates priorities for the focus of the TP scope of work.
6. The Fernald Baseline covers the scope and budget for Projects to interact with TP in the way necessary for success of the TP mission.
7. Minimum interruption in the current TP position occur from the implementation of DOE Contract DE-AC24-01OH20115 and the changes in approach to work, work sequence and schedule that it will bring about at Fernald.
8. Funding of technology initiatives by DOE OST occurs on a timely schedule. DOE responds and acts in a timely manner to proposals for support submitted by Fernald. DOE adheres to published schedules for funding initiatives and projects for ASTD, LSDDP, demonstrations and deployments. Technical Task Plans are funded promptly, including both new funding and carry-over funding as fiscal years change.
9. The DOE-OH releases funding designated for Fernald in a timely manner without delays by the Ohio Field Office.
10. The TP scope of work includes the Primary Responsibilities described in the Fluor Fernald Functional Responsibilities Matrix and the scope described in DOE Contract DE-AC24-01OH20115 Attachment 1 C-6. TP will provide the principal investigation for each technical task plan conducted by Fluor Fernald.
11. Resources, including manpower, subcontract support, and Fluor Fernald support organization support are available in a timely manner to TP.
12. Fluor Fernald will not do "work for others" as part of the scope of work under DOE Contract DE-AC24-01OH20115.
13. DOE-OH and DOE-FEMP will not transfer funds out of the Fernald Baseline nor reallocate funds among Fernald projects without agreement of TP management and approval of the Fluor Fernald management.
14. DOE-FEMP establishes and maintains a DOE-OST Technology Program Officer staff member that is qualified, empowered and funded as

required for support, and exercises strong advocacy for TP and Project technology initiatives.

15. The Fluor Fernald TP continues to provide the defined scope of work through ~~FY'08~~ **FY06**

16. TP will initiate and manage the performance of zero (0) demonstration per year of technologies targeted as low risk, low demonstration cost, quickly deployable technology innovations.

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17. Over the life of the Contract, TP will initiate and manage the performance of ~~up to 4~~ demonstrations and/or deployments ~~per year~~ of technologies targeted as high-risk, high demonstration cost, longer-lead technology innovations (supported from Non-MSA sources at an average level of approximately \$700,000, or greater). **These activities will be supported as allowed by available staff.**

18. Fluor Fernald Project ("operations") qualified technical and management personnel will cooperate with TP in the strategizing, development of detailed scope, detail planning and development of proposals for technology initiatives, and Fluor Fernald Projects will expeditiously perform the scope of work related to field execution of successful and funded initiatives for demonstration and deployment of innovative technologies, processes and approaches.

19. The estimated time for large project proposal and capture activity, from start of proposal to approval of Change Proposals to the site Baseline is 6 – 12 months, with 9 months used as the basis of estimate for budget preparation purposes.

20. The execution time for large technology projects including demonstration and deployment initiatives is 18 – 24 months.

21. The TP scope of work contains no tasks relating to inventions and patents.

1.2.2 Exclusions

1. Exclude management of Fluor Fernald Intern Program.
2. Exclude management of Fluor Fernald University Diversity Interface with HBCU
3. Functions relating to Inventions and Patents are excluded from the Technology Programs Scope of Work.

1.2.3 Government Furnished Equipment/Services

None

1.3 DRIVERS

Priority Projects Designated for Technology Programs (TP) focus are designated by Fluor Fernald Management.

Facilities D&D Project FY 01 - FY 08
TP project field activity will ~~will~~ anticipated to end in 07
Last large proposal submitted in 05

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Silos Project FY 01 - FY 08
TP project field activity will ~~will~~ anticipated to end in 06
Last large proposal submitted in 04

OSDF & Soil Characterization and Excavation FY 01 - FY 10
And Aquifer Remediation Project
TP project field activity will ~~will~~ anticipated to end in 08
Last large proposal submitted in 06

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Nuclear Materials, uranium waste Disposition FY 01 - FY 05
TP project field activity will ~~will~~ anticipated to end in 04
Last large proposal submitted in 03

Mixed Waste Project & Waste Management FY 01 - FY 06
TP project field activity will ~~will~~ anticipated to end in 05
Last large proposal submitted in 03

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011

~~Exclude: Aquifer Remediation~~

1.4 SCOPE OF WORK:

1.4.1 Task #1- Department Administration

The scope of work provided by Technology Management in FY01 includes the following scope:

1. Safety assurance
 - Perform regular safety walkdowns
 - Attend Division All Hands meetings
 - Departmental Monthly Safety Meeting
 - Conduct Safety Time-Outs
 - Attend the Presidents Monthly Safety Meeting
2. Support duties of Functional Area Manager (FAM) for R&D and Experimental Activities and S/RID requirements
3. Conduct required Scientific and Technical Information (STI) management, per DOE O241.1
 - Review technical papers/presentation
 - Obtain required approvals
 - Submit required reports and enter data as required into DOE STI system
4. Conduct administration of Fluor Technology Programs department

- Conduct personnel Performance Assessments, development plans, and rankings
 - Develop and maintain personnel files, maintain records as required by department
 - Manage and coach team members
 - Develop required procedures
 - Conduct required reading
 - Obtain, maintain and store supplies, computer hardware
5. Attend training per established training profiles
 6. Develop and maintain Baseline
 7. Conduct Control Team activities

The plan for performing the above Technology Management scope is to continue the above services until services are modified as follows:

1. Each year the number of Technology Programs ~~personnel requiring management and administration~~ will decline by approximately one individual, and the service requirements for other administrative tasks will likewise decline since the general site-wide scope of work will decline.
2. In FY08 FY06, the EM31 Technology Programs ~~Activities Mission~~ at Fernald ~~will be planned to be completed.~~

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The quantification for Technology Management is based indirectly on the Fluor Fernald, Inc. Project and subcontract manpower. The following table shows the Technology Programs source requirements for this task and the correlation with products from the task.

Task #1	FY	1	2	3	4	5	6	7	8	9	10
Program Manager		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0	0
Tech Program Support Manager		0.37	0.3	0.2	0.2	0.2	0	0	0	0	0
Secretary		0.2	0.2	0.2	0.2	0	0	0	0	0	0
Supplies		\$2,500	\$1,836	\$1,486	\$1,190	\$807	\$460	\$230	\$0	\$0	\$0

FTEs represented do does not include EM-50 funded tasks.

1.4.2 Task #2- Site Technology Coordination Group (STCG)

The purpose of this task is as follows: Support the DOE's Site Technology Coordination Group, which provides a link between the national technology program, regulators, stakeholders, focus areas and the FEMP. Interface with DOE on technology programs. Identify FEMP technology needs relating to priority Projects specified by Fluor Fernald management.

The scope of work provided by Site Technology Coordination Group in FY01 included the following scope:

1. Support the DOE's STCG, which provides a link between the national technology program, regulators, stakeholders, focus areas and the FEMP. (Identify FEMP technology needs relating to priority Projects specified by Fluor Fernald management.)
2. Hold quarterly Fernald STCG meetings
 - Coordinate with stakeholders and other participants (public affairs)
 - Report results of meeting & Conduct follow up activities
3. DOE Office of Science and Technology and DOE-OH Technology program management
 - Develop and maintain appropriate links (relationships, liaisons) with the DOE national technology program and related areas
 - Focus Area Management
 - Participate in the DOE-Ohio STCG - Develop agenda and arrange required support
 - Conduct Ohio needs coordination meeting.
- ~~4. Develop and maintain appropriate links (relationships, liaisons) with the DOE national technology program and related areas~~
 - ~~• Focus Area Management~~
 - ~~• Participate in the DOE-Ohio STCG - Develop agenda and arrange required support~~
 - ~~• Conduct Ohio needs coordination meeting.~~
4. Develop and maintain appropriate links (relationships, liaisons) with the Fernald project management and related functions, V.P. level management
 - ~~• Conduct Annual Focus Area needs meeting at Fernald~~
 - Deliver presentation to leadership team to report the identification of targeted technology needs specific to the priorities, as established by the FEMP projects (preparations for Technology Demonstration and Deployment Service Plan)
 - Report technology needs into EM-50 systems, including IPABS
 - Develop detailed needs statements
 - Review of multi year program plan
 - Prepare reports for OST systems
 - Mid-year and year-end reviews and presentations (OST Germantown DOE-HQ, Forrestal)
 - Focus Area-required reports
 - Monthly conference calls with HQ
 - Quarterly (Deployments & Demonstrations) site overall program Report
 - Weekly bullet reports to EM-50 (similar product for EM-30 and Site)
 - Unidentified Focus Objective (UFOs) (Unplanned) requirements for special tasks and reports
 - Conduct Annual Focus Area needs meeting at Fernald
 - Develop agenda and arrange required support
 - Coordinate with Focus Area management
 - Participate in the Focus Area detail reviews of technology needs
 - Report results of meeting

R1-D-013

R1-D-013

- ~~Deliver presentation to leadership team to report the identification of targeted technology needs specific to the priorities, as established by the FEMP projects (preparations for Technology Demonstration and Deployment Service Plan)~~
- ~~Report technology needs into EM-50 systems, including IPABS~~
- ~~Develop detailed needs statements~~
- ~~Review of multi-year program plan~~
- ~~Prepare reports for OST systems~~
 - ~~– Mid-year and year-end reviews and presentations (OST Germantown DOE HQ, Forrestal)~~
 - ~~– Focus Area required reports~~
 - ~~– Monthly conference calls with HQ~~
 - ~~– Quarterly (Deployments & Demonstrations) site overall program Report~~
 - ~~– Weekly bullet reports to EM-50 (similar product for EM-30 and Site)~~
 - ~~– Unidentified Focus Objective (UFOs) (Unplanned) requirements for special tasks and reports~~
- Support requirements that originate from coordination with DOE HQ EM-30
 - Coordination, communication with EM-30 representative
 - Technology Information Exchange (TIE) Workshop planning, support and participation
 - Support for DOE-FEMP, McCracken et. al.
 - Prepare for presentations at Congressional Exhibit, 2 Ohio Summits, Mid/Year-end Reviews
 - Conduct special meetings and presentations
 - Support DOE TPO and DOE project managers for required and mandatory meetings
 - Support Fernald TPO by weekly review meetings (1 per wk, TPO only)
 - Support initiatives and requirements that originate from coordination with DOE-OH (Susan Brechbill)
 - ~~– Support special requirements from Director~~
 - Support DOE-OH TPO as required by DOE-FEMP
 - . Meetings, Reports, travel
 - Quarterly IPABS review
 - IPABS Reports
 - Coordinate with other Ohio sites technology and other initiatives, (Ohio Cost Savings, pre-needs meetings, others) 4 per yr

R1-D-013

The plan for performing the above Technology Coordination Group scope is to continue the above services until services are modified as follows:

1. Each year the quantity of products by Technology Programs will decline in a regular manner, with decreases in the number of STCG meetings, decline in the number of interfaces with DOE and fewer reports on

validated needs for improved technology, with concomitant reduction in TP personnel.

2. Technology Programs' manpower (baseline EM30) requirements are based on the needs of the Projects with the focus on the D&D, NM, WM/MW, Silos, and Soils & OSDF Projects. As the Projects are completed and their need for new/innovative technologies to improve safety, reduce costs and shorten schedules diminish, Technology Programs manpower requirements will be reduced.
3. In FY04 STCG Meetings will be reduced by one event, plus related DOE and Focus Area interface meetings and engagements will be proportionately reduced.
4. In FY05 STCG Meetings will be reduced to two events, plus related DOE and Focus Area interface meetings and engagements will be proportionately reduced.
5. In FY06 STCG Meetings will be eliminated, plus related DOE and Focus Area interface meetings and engagements will be eliminated.
6. In FY08, The Technology Programs Mission at Fernald will be completed.
7. These activities will be supported as allowed by available staff.

R1-F12-016

The quantification for Technology Coordination Group is based indirectly on the Fluor Fernald, Inc. Project and subcontract manpower. The following table shows the Technology Programs source requirements for this task and the correlation with products from the work.

Task #2 FY	1	2	3	4	5	6	7	8	9	10
STCG Meetings	4	4 *	4 *	3 *	2 *	0	0	0	0	0
DOE Focus Area, HQ Interfaces and Needs Reports	84	84 *	32 *	24 *	18 *	10 *	5 *	0	0	0
Wkly TPO support mtgs., FA conference calls and mtgs., meetings with EM31 personnel, congressional exhibits and requests for information, mtgs. With Fluor Fernald Project VPs, FA needs mtg., conference calls with DOE HQ, mtgs. with DOE HQ personnel, DOE HQ quarterly deployment/demonstration report, etc.										
Program Manager	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0	0	0
Tech Program Support Manager	0.3	0.3	0.3	0.1	0.1	0	0	0	0	0
Tech Program Support Rep.	2	1.8	1.6	1.4	1.1	0.6	0.2	0.3	0	0
Secretary	0.4	0.4	0.05	0	0	0	0	0	0	0
Travel & Expenses	\$36,500	\$33,000	\$22,925	\$19,150	\$9,050	\$2,150	\$2,150	0	0	0

FTEs represented do not include EM-50 funded tasks.

*These activities will be supported as allowed by available staff.

R1-D-014, R1-F12-016
& R1-F12-058

1.4.3 Task #3 –Technology Investigation for Deployment

The purpose of this task is as follows: Investigate and manage the use of innovative technologies, approaches and processes in environmental restoration, waste management projects and safety. The Contractor shall draw upon all available sources including the Office of Science and Technology, commercial industry, other governmental agencies, and universities. Identify opportunities and sources of technology to address FEMP specific priority needs identified in Scope of Work Task #1. Provide oversight for new technology, manage the University Applications Program. Identify, develop, and pursue opportunities to obtain external resources, support and funding for getting priority innovative technologies into Fernald.

The scope of work provided by Technology Investigation for Deployment in FY01 included the following scope:

1. Investigate and manage the use of innovative technologies, approaches and processes in environmental restoration, waste management projects and safety. The Contractor shall draw upon all available sources including the Office of Science and Technology, commercial industry, other governmental agencies, and universities. (Identify opportunities and sources of technology to address FEMP specific priority needs identified in Task#2. Identify, develop, and pursue opportunities to obtain external resources, support and funding for getting priority innovative technologies into Fernald.)
2. Develop appropriate detailed understanding and quantification of conditions, risks, impacts, and schedule and coordination requirements relating to the potential deployment of a new technology to address project needs determined from Task#2.
 - Appropriately engage Technology Programs staff and resources with Project, and/or co-locate Technology Programs staff with Project, and/or attach or matrix Technology Programs staff to Project
3. Investigate New Technologies that Potentially Fill the Needs of the Projects
 - Search all sources for improved, innovative technology options to fill needs
 - Commercial/ industrial sources
 - DOE sources: EM-50, EM-30, EM-40 (other sites), National Laboratories
 - Universities
 - Non-DOE and other Government sites and Programs, including military
 - Trade shows and other industry activities
 - Conferences, meetings
 - Visits and interfaces with vendors, developers and providers
 - Literature search functions
 - Complete technology review forms
4. Identify the "short list" of technologies that are likely the "Best Bets" that address FEMP needs. Produce a list of new technologies that may be

deployable at the FEMP in the near-term, at low cost and low risk (Opportunities targeted for quick action with site resources). Produce a list of new technologies that may be deployable at the FEMP in the longer term, at higher cost and higher risk (Opportunities targeted for pursuit jointly by the FEMP and other resource organizations, including EM-50, Focus Areas, and others, through ASTD projects, LSDDP proposals, etc.) These lists are to form the basis for focused project and management review and the development of the Technology Demonstration and Deployment Service Plan.

- Prepare preliminary benefit analysis
 - Validate need, timeliness, estimated impact by close coordination with projects
5. Develop proposals for submission to the DOE and other organizations that can provide for the award of funds for FEMP technology demonstration and deployment initiatives. Proposals may be solicited or unsolicited based upon FEMP needs.
 6. Identify opportunities for obtaining new funding for Fernald technology demonstration and deployment initiatives
 7. Track DOE Budget cycle (where the \$ are going to be available for potentially funding Fernald needs.)
 8. Provide information to DOE-HQ, Focus Area, and other Budget and funding organization decision makers on FEMP Technology options
 9. Develop an annual Technology Demonstration and Deployment Service Plan for Fluor Projects.
 - Produce a list of new technologies that the Fluor managers of Priority Projects have reviewed and agree could be screened at the FEMP in the near-term, at low cost and at low risk. ("Quick Wins" - Opportunities targeted for quick action with site resources) for the annual planning consideration by projects.
 - Produce a list of new technologies that the Fluor managers of Priority Projects have reviewed and agree may be deployable and desirable at the FEMP in the longer term (compared to the "Quick Win" list), at higher cost and higher risk (Opportunities targeted for pursuit jointly by the FEMP and other resources, including EM-50, Focus Areas, and others, through ASTD projects, LSDDP initiatives, etc.)
 - Present annual Demonstration and Deployment Service Plan to the Leadership Team.
 10. Operate the Fluor Fernald University Applications Program to support FEMP Projects in a manner that is closely coordinated with the other efforts by Technology Programs. Fluor Fernald has established partnerships or other business relationships with local universities and institutions and members of the Historically Black Colleges and Universities/ Minority Institutions Environmental Technologies Consortium (HBCU/MI ETC). Operate the University Applications Program to provide Fluor Projects with requested services of appropriate and/or special technical skills, and to support the

demonstration of technologies targeted as low risk, low cost, near-term need.

- Provide project managers with university-based solutions for technical issues
- Call and meet with project managers to understand their technical needs
- Meet with senior management to coordinate technical needs within a project and across the site.
- Work closely with managers (one-on-one meetings, as required for this critical step) to select best source to meet their technical needs, considering urgency, facilities needed, technical specialization requirements, and cost
- Coordinate with Technology Programs to optimize use of universities in identifying and deploying new technologies
- Periodically meet with administrators, faculty, and staff of each institution from which Interns are (can be) obtained to understand capabilities of each institution
- Draft statements of work for project managers
- Work with procurement to issue a task order to the appropriate university or institution through one of several BOAs under which these task orders are placed.
- Arranges for site access for Intern personnel (including foreign national security process), medical and drug screening, and initial training of all university personnel who need to access the Fernald site
- Maintain a database that tracks key cost and performance information
- Maintain files of all technical aspects of each task order
- Monitor success of each task order by project reviews and discussions with project managers and contractor (university) personnel

The plan for performing the above Technology Investigation for Deployment scope is to continue the above services until services are modified as follows:

1. Each year the quantity of products developed by Technology Programs will decline in a regular manner, as the site-wide scope of work declines, and as project personnel carry a larger role in the development of technology initiatives, formerly handled almost entirely by TP personnel.
2. After FY03, the need and opportunity to deploy new/innovative technologies in the NM and WM/MW Projects will be eliminated because the Projects will essentially be complete, provided projects follow the baseline plans promulgated at the time of development of this technology programs baseline information. This change is realistic, given the decreasing scope of site-wide work. The focus in FY04 and FY05 will be to support the Silos, D&D and Soils & OSDF Projects, with manpower (baseline EM30) dropping.

3. Technology investigations decline by approximately 30% each year beginning in FY03.
4. Technology vendor demonstrations decline by approximately 50% each year beginning in FY05.
5. Technology large proposals decline by approximately 50% in FY04 and an additional 50% FY06 and are eliminated in FY07
6. Technology Programs manpower (EM30 Baseline) will be reduced in FY02 and FY03 to reflect increased efficiencies and the fact that project personnel will carry a larger role in proposal development and the tasks necessary to support technology initiatives that have traditionally been conducted primarily by TP.
7. Technology large project new starts decline one per year starting in FY04 and are eliminated by FY08.
8. University Contracts decline by 50% from FY02 to FY03 and are eliminated in FY05.

The quantification for Technology Investigation for Deployment is based indirectly on the Fluor Fernald, Inc. Project and subcontract manpower. The following table shows the Technology Programs source requirements for the task and the correlation with products that result from the work.

R1-F12-016	Does not include EM-50 funded tasks.Task #3 FY	1	2	3	4	5	6	7	8	9	10
	Technology Investigations	12	10	7	4	2	1	0	0	0	0
	Large Proposals Produced	6	10	9	5	4	2	0	0	0	0
	University Technology Contracts	3	3	3	3	0	0	0	0	0	0
R1-F12-058	Program Manager	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0	0
	Tech Program Support Manager	0.3	0.3	0.3	0.1	0.1	0	0	0	0	0
	Tech Program Support Rep.	3	1.6	1.5	1.3	1	0.5	0.1	0	0	0
	Secretary	0.4	0.4	0.05	0	0	0	0	0	0	0
	Travel & Expenses	\$38,000	\$33,000	\$24,600	\$24,000	\$10,500	\$6,000	\$2,000	0	0	0

FTEs represented do not include EM-50 funded tasks.

* These activities will be supported as allowed by available staff

1.4.4 Task #4 - Project Execution

~~The purpose of this task is as follows: Conduct technology demonstrations and deployments. Conduct demonstrations and deployments of new technology on priority Projects that directly enhance the efficiency, lower the cost or improve the safety of remediation of the FEMP, as determined by Fluor Fernald Project Management. Develop new technology. (Not included in this Baseline: For activities funded by the DOE Office of Science and Technology (EM 50),, conduct technology~~

R1-D-015

demonstrations and deployments as directed by the Contracting Officer, in coordination with the DOE Technology Programs Officer, when it is determined to be advantageous to the Department. This task covers the completion of all necessary support and preparation for the execution of technology demonstrations and deployments, primarily those activities funded by the DOE Office of Science and Technology, EM-50, which are not included in the Fluor Technology Programs Baseline for Control/Charge Account NDAAV, and are covered in the Non-Defense Baseline. The site Total Project Cost in the Baseline does not include the EM-50 funding.

R1-D-015

The demonstrations/deployments to be conducted will be those that directly enhance the efficiency, lower the cost and/or improve the safety of site closure. The selection and approval of demonstrations/deployments will be a joint effort between all parties (Fluor Fernald Inc., DOE FEMP, DOE OST).

The scope of work provided by Project Execution beyond in FY01 included includes the following scope:

1. Conduct technology demonstrations and deployments. For activities funded by the DOE Office of Science and Technology (EM-50), conduct technology demonstrations and deployments as directed by the Contracting Officer, in coordination with the DOE Technology Programs Officer, when it is determined to be advantageous to the Department. (Conduct demonstrations and deployments of new technology on priority Projects that directly enhance the efficiency, lower the cost or improve the safety of remediation of the FEMP.)
2. Conduct vendor funded technology demonstrations, held either at the FEMP or at an off-site location such as FIU, or the vendors facility.
3. Perform ("Quick Win") demonstrations (0 per year) of technologies targeted as low risk, low cost, quickly deployable activities.

Confirm agreement among Project management and Technology Programs management on large technology initiatives to be demonstrated/deployed. On demonstrations to be funded by EM-50, support and preparation include the following: planning meetings, vendor funded demonstrations, proposals, papers, PEGs, TTPs, budgets, schedules, CPs, control accounts, and charge numbers.

Task may include the following activities: prepare TTP PEGs, and as appropriate, the Budget, CP, and establish a charge number.

4. Perform demonstration of higher risk, more costly, longer lead technologies that are supported by the DOE EM-50 Office of Science and Technology and others
 - Coordinate with the sponsoring organization(s)
 - Coordinate with the appropriate DOE Focus Areas, HQ and program
 - Evaluate the results of the demonstrations of innovative technologies
 - Prepare cost/benefit analysis
 - Prepare analysis on safety impact

• **Conduct tasks necessary to support execution and startup of demonstrations and deployments**

- Prepare appropriate information to communicate results

~~5. Execute Project~~

- ~~Procurement~~
- ~~RFP~~
- ~~Monthly Reports~~
- ~~IPABS~~
- ~~VARs~~
- ~~Design~~
- ~~TRB~~
- ~~H&S Plan~~
- ~~Safety Plan~~
- ~~Permits~~
- ~~Travel~~
- ~~Video, pictures~~
- ~~Mid-years~~
- ~~Subcontracts~~
- ~~Training~~
- ~~Factsheets~~
- ~~Final Reports~~
- ~~Presentations~~

R1-D-015

~~6. Write/present professional papers~~

The plan for performing the above Project Execution scope is to continue the above services until services are modified as follows:

1. In FY04, large new project starts will decline by one per year with elimination of new starts in FY08.
2. In FY04, development of technical task plans and baseline change proposals and related activities will decline by one event per year, each year, until elimination of those support activities in FY08.
3. Starting in FY04, vendor demonstrations will decline from a high of five per year to zero in FY07.
4. Starting in FY02, all small technology demonstrations in support of Fernald projects will be eliminated.
5. FY06 will be the last year for new proposals.
6. FY07 and FY08 manpower will be focused on closing out projects and finalizing records.

The quantification for Project Execution is based indirectly on the Fluor Fernald, Inc. Project and subcontract manpower. The following table shows the Technology Programs source requirements for completing the task and the correlation with products from the task.

PBS-12, PROGRAM SUPPORT AND OVERSIGHT
 CLOSURE PLAN BASIS OF ESTIMATE
 2500-PL-0011, Revision 1
 September 2001

Task #4	FY	1	2	3	4	5	6	7	8	9	10
Vendor Tech. Demonstrations		4	5 *	5 *	4 *	2 *	4 *	0	0	0	0
Small Project Site Tech. Demonstrations		1	0	0	0	0	0	0	0	0	0
Large Projects New Starts*		10 *	4 *	5 *	4 *	3 *	2 *	1 *	0	0	0
Develop TTPs, CPs		10	4 *	5 *	4 *	3 *	2 *	1 *	0	0	0
Tech Program Program Manager		0.01 *	0.01 *	0.01 *	0.01 *	0.01 *	0.1 *	0.01 *	0	0	0
Tech Program Support Manager		0.1	0.1 *	0.1 *	0.07 *	0.04 *	0	0	0	0	0
Tech Program Support Rep.		1	0.6	0.7	0.6 0.5	0.48 0.5	0.3 4 0.0	0.15 0	0	0	0
Secretary		0	0	0	0	0	0	0	0	0	0
Travel & Expenses		\$ 4,500.00	\$4,500.00	\$3,500.00	\$2,500.00	\$1,000.00	0	0	0	0	0

FTEs represented do Does not include EM-50 funded tasks.
 These activities will be supported as allowed by available staff.
 ** Includes ongoing Large Projects.

R1-F12-016

SECTION 6

2.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1ND06 TECHNOLOGY PROGRAMS

DRIVERS	START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
201 D&D Summary	10/02/2000	03/30/2007		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
301 OSDF Summary Schedule	04/01/2004	12/23/2009																									
411 AWWT Operations	10/02/2000	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
501 D & D OF RAILCARS	03/21/2005	09/22/2005																									
502 WASTE PIT SHIP/DISPOSAL OPERATIONS	10/02/2000	08/01/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
601 Soils Excavation Project Summary	10/01/2003	12/31/2009		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
702 AWR CONSTRUCTION	06/19/2000	04/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
703 AWR DEMOB	06/11/2003	10/23/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
704 Silos AWR Summary	10/02/2000	10/23/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
710 Silos 1, 2, & 3 Summary Activity	10/02/2000	03/31/2008		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
711 AWR SOT	08/22/2001	07/15/2002		xx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
712 AWR ORR	12/11/2001	02/08/2002						xx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
713 AWR OPERATIONS	05/28/2002	04/14/2003						xx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
801 Nuclear Materials Summary	10/02/2000	05/20/2002		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
1001 Mixed Waste Summary	10/02/2000	09/30/2003		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
1101 Low Level Waste Summary	10/02/2000	09/30/2005		xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx
Project Management	Program Mgr.		23.60	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Project Management	Tech/Program Support Mgr.		4.00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Management	Tech/Program Support Rep.		49.60	6	6	6	6	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1
Administration	Secretaries		8.80	1	1	1	1	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0	0	0	0	0	0	0	0
Sheet Totals:				86.00	9.00	9.00	9.00	3.70	3.70	3.70	3.70	3.30	3.30	3.30	3.30	2.20	2.20	2.20	2.20	2.00	2.00	2.00	2.00	1.30	1.30	1.30	1.30

MPS #	1ND06	TECHNOLOGY PROGRAMS

[illegible]

SECTION 6

3.0 ESTIMATE

NDAAV

TECHNOLOGY PROGRAMS

Fluor Fernald, Inc.

DATE: 10-Sep-01
PROJECT MGR: PAUL PETTIT
CAM: TERRY HAGEN
PREPARED BY: TRACY BRAUN
FISCAL YEAR: FY01 - FY10

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

COMMENT NO: 12-016, 12-058, 12-060

PBS: 12

WBS: 1.1.N.D.

CTRL ACCT: NDA

CHARGE NO: NDAV

Resource: MAT300
Res Dept:

MATERIAL OBJCLASS300
Overtime:

Class:

MATERIAL

EOC:
MAT

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Units:	2,500.0	1,836.0	1,486.0	1,190.0	807.0	460.0	230.0	0.0	0.0	0.0
Cum Units:	2,500.0	4,336.0	5,822.0	7,012.0	7,819.0	8,279.0	8,509.0	8,509.0	8,509.0	8,509.0
Yr Total Cost:	2,500	1,886	1,567	1,290	899	528	271	0	0	0
Cum Total Cost:	2,500	4,386	5,953	7,243	8,143	8,670	8,942	8,942	8,942	8,942

Resource: ODCTRVL
Res Dept:

TRAVEL RESOURCE
Overtime:

Class:

ODC

EOC:
ODC

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Units:	79,000.0	70,500.0	51,025.0	45,650.0	20,550.0	8,150.0	4,150.0	0.0	0.0	0.0
Cum Units:	79,000.0	149,500.0	200,525.0	246,175.0	266,725.0	274,875.0	279,025.0	279,025.0	279,025.0	279,025.0
Yr Total Cost:	79,000	72,404	53,818	49,497	22,905	9,348	4,898	0	0	0
Cum Total Cost:	79,000	151,404	205,221	254,718	277,623	286,971	291,868	291,868	291,868	291,868

Resource: PROMGR
Res Dept:

PROGRAM MGR
Overtime:

Class:

LABOR

EOC:
SAL

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	1,572.3	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,012.3	10,012.3	10,012.3	10,012.3	10,012.3
Yr Total Cost:	136,503	172,871	183,105	193,901	205,395	197,498	0	0	0	0
Cum Total Cost:	136,503	309,373	492,478	686,379	891,774	1,089,272	1,089,272	1,089,272	1,089,272	1,089,272

Resource: SECRET
Res Dept:

SECRETARIES
Overtime:

Class:

LABOR

EOC:
SAL

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	1,452.0	1,222.9	524.1	349.4	0.0	0.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	2,674.9	3,199.0	3,548.4	3,548.4	3,548.4	3,548.4	3,548.4	3,548.4	3,548.4
Yr Total Cost:	32,423	28,743	13,048	9,211	0	0	0	0	0	0
Cum Total Cost:	32,423	61,166	74,214	83,425	83,425	83,425	83,425	83,425	83,425	83,425


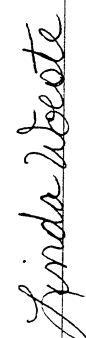
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INCLUDES ESCALATION COSTS

[illegible][illegible]

GRAND TOTALS:

	Oct 00-	Oct 01-	Oct 02-	Oct 03-	Oct 04-	Oct 05-	Oct 06-	Oct 07-	Oct 08-	Oct 09-
Yr Hours:	Sep 01	Sep 02	Sep 03	Sep 04	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10
	13,068.0	6,463.9	5,765.1	3,843.4	3,494.0	2,271.1	0.0	0.0	0.0	0.0
Cum Hours:	13,068.0	19,531.9	25,297.0	29,140.4	32,634.4	34,905.5	34,905.5	34,905.5	34,905.5	34,905.5
Yr Total Cost:	838,764	513,212	501,407	409,861	392,882	307,501	37,035	0	0	0
Cum Total Cost:	838,764	1,351,976	1,853,384	2,263,245	2,656,126	2,963,627	3,000,662	3,000,662	3,000,662	3,000,662

CAM  Eric T. Hager CONTROL TEAM  Linda Weete

SECTION 6

4.0 RISK PLAN

